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FREDERICK G. SHINN
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AUTHOR'S NOTE.

THAT Harmonic ear-training is the only basis of all sound Harmony teaching is now practically admitted by every competent teacher of Harmony, and Part I of the present book is intended to be a companion book of Ear and Dictation Exercises to the various text books on Harmony which exist, and in which no ear-exercises are given, as well as to supply additional ear-exercises for use in connection with the author's "Method of Teaching Harmony based upon Ear-training." Matters relating to the formation and progression of the various chords, have been discussed in this book only so far as a knowledge of them is necessary to the listener, in order that he may be able to intelligently understand the musical character and function of the different chords and correctly unravel what is presented to him to write down from dictation. To this limited extent this book must, therefore, cover ground which is common to all text books on Harmony, but beyond this it is not intended as a substitute for such text books.

In the Introductory Chapter to Part II, which treats of Contrapuntal Ear-training, the author has endeavoured to show that the teaching of Counterpoint must (in a corresponding manner to the teaching of Harmony) be based upon systematic Contrapuntal Ear-training, or at least, so far as such teaching is intended to develop the *musical* powers of the individual in the directions they are appealed to when observing or listening to, and when *mentally conceiving*, music of a contrapuntal character. One great hindrance to the teaching of Counterpoint upon such a method has been the absence of any book of suitable ear-exercises, but with the publication of this book it is hoped this difficulty will to a large extent be removed, and those teachers who regard the study of Counterpoint as a form of real *musical* training will find the many graduated contrapuntal dictation exercises a valuable means by which their teaching may be made of greater interest to themselves and of far greater interest and value to their pupils.

The value of training listeners to concentrate their attention upon, and to take out, one or more inner parts (in exercises in three or more parts), was first brought to the author's attention when he was a student, attending Sir Walter Parratt's dictation classes at the Royal College of Music, and the series of three and four part dictation exercises which have been specially constructed to help listeners to overcome the difficulties of this form of exercise will, it is hoped, further direct the attention of teachers to a branch of ear-training which is invaluable to those who look forward to becoming trainers of choirs and orchestras.

SYDENHAM, *March, 1910.*

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PART I.

HARMONIC EAR-TRAINING.

INTRODUCTORY CHAPTER (A).—TO THE TEACHER.

I. THERE is perhaps nothing of greater importance to a teacher than that he should possess clear ideas upon the nature of the goal—the educational end—towards the attainment of which he is endeavouring to lead his pupil by means of the study of some particular subject. While there is uncertainty with regard to the object and purpose of the study of a subject, there cannot be certainty upon any dependent matter, as, for instance, the *means* by which the desired end is to be reached. As, so far as we know, this book is the first published attempt to formulate a systematic and comprehensive method of teaching the subject of harmonic ear-training, we propose to consider, in this preliminary chapter, both the ultimate end to which the study of the subject leads, and also some of those directions in which the powers of the mind are specially trained and developed as a result of its study. Reference is also made to various matters connected with the teaching of the subject, as, for instance, to the order in which the harmonic materials of music—the intervals and chords—should be presented to the pupil, and how their musical character may be most suitably illustrated, and also to the nature and special difficulties of the exercises; while in conclusion, an endeavour is made to define the position and relation which the subject of harmonic ear-training bears to other subjects of musical education and to musical education in general.

II. HARMONIC EAR-TRAINING—ITS NATURE AND SCOPE DEFINED.—Harmonic ear-training is the training of the powers of observation (or listening), of discrimination (or the recognising of differences), of memory, and, in its early stages, of thought, in connection with the harmonic material of music, that is, in connection with intervals and chords, and progressions of such; and side by side with this training, to impart such related knowledge which will enable the individual so trained, either to describe, or to represent in musical notation, any harmonic combination or progression he may hear and remember, or which he may conceive and shape in his mind. The method by which this end is secured is by presenting to the mind of the pupil, in a carefully graduated manner, the various intervals and chords employed in music, first that he may have his attention directed to the special musical

character and effect of each, then, that he may memorize the sound of each combination, associating the sound with its technical description and the manner of representing it in musical notation. After an interval or a chord has been studied "in isolation," that is by itself, it is joined with others to form progressions, which are studied in a corresponding manner. By this means, the powers of observation, of discrimination, and of memory, are exercised upon a wide range of harmonic materials, beginning with the simplest combinations and proceeding by exercises of gradually increasing difficulty to progressions of several chords.

III. HARMONIC EAR-TRAINING—THE PURPOSE OF ITS STUDY.—The first and most obvious result of the study of harmonic ear-training is *the training and development of the listening powers*, the musically observing powers of the individual. As a result of listening to harmonic ear-exercises of suitable, but also of gradually increasing length and difficulty, with the object of writing such down from dictation, the listening powers, while being concentrated upon a limited progression of chords, are, within these limits, exercised to their very fullest extent. Because, however, such exercises have to be written down complete in every detail, it is necessary that every detail shall not only have been heard and consciously noted, but shall also be remembered an appreciable time. Side by side, therefore, with the development of the listening powers is also developed the *musical memory*, or the power of retaining in the mind what is heard. It is only by the exercise of this power that dictation exercises can be written down at all, and the fact established beyond doubt, that everything which was played was heard and noted. The training of the powers of observation and musical memory, however, valuable as they are in themselves, only lead the way to what may be regarded as the ultimate goal of harmonic ear-training, *the development in the individual of the power of harmonic thought*, that is, the power of bringing before the mind the musical effect of all kinds of harmonic combinations, of joining them together, and shaping them in any way the fancy or the imagination may suggest, and of expressing these mental creations or imaginings in musical notation. This power not only enables the individual to translate what he hears, either as real musical sounds or as mental musical sounds, into musical notation, but also enables him to successfully perform the complementary operation of creating in his mind the musical effect of what is represented before him in musical notation, that is, in its highest sense, of *reading music.*

IV. METHOD OF TEACHING.—The method adopted in the teaching of this subject does not differ in principle from that employed in connection with the teaching of other related studies. The simplest harmonic combinations—that is, the various intervals sounded harmonically—are presented first and the characteristic musical effect of each studied and memorized. The various chords are then introduced and studied in a similar manner. As each new interval or chord is presented, the pupil is exercised in discriminating between the sound of the different intervals, or the different chords which have already

been presented, in recognising them from their sound, and in listening to and remembering short progressions of them, (carefully graduated in length and difficulty), which he is required either to describe verbally or to write down in musical notation.

V. Intervals—the Order and Method of their Presentation.—Two matters of no small importance and which require consideration before the various intervals and chords can be presented to the mind, are the "order" and the "method" in which they should be introduced to the pupil. With regard to intervals, in the framing of an *order of presentation*, there seem to be two fairly obvious matters to which due regard must be paid, (i) those intervals which possess a self dependent musical character, namely the consonant intervals, should be studied before the intervals which do not possess such a character, namely, the dissonant intervals, which leave the mind musically unsatisfied; and (ii) those intervals which are most familiar in sound (in either class) should be presented before those which are less familiar. With regard to the manner of introducing the various intervals, or what is called the *method of presentation* this should, as far as possible, assist the pupil to intelligently understand the technical names and classification of the various intervals. Each interval, in the first instance, should be presented in its most familiar position in the scale, so far as this can be approximately determined, and where its individual musical character can be observed under the most favourable conditions. If an interval possesses more than one musical character, each of these must be suitably illustrated.

VI. Harmonic Order and Melodic Order Compared.—In any consideration of either the order or the method of presentation of intervals in their harmonic form, we are confronted at the outset with a pitfall into which some teachers have fallen by following—if not entirely—at least to a considerable extent the order and the method which are frequently adopted in the *melodic* presentation of intervals, that is, after the introduction of the notes of the common chord, the forming of the other diatonic intervals in a kind of gradually progressive manner above the keynote, and then regarding the character of each interval so formed, as the typical musical character of that particular interval, viewed generally. Teachers when introducing the intervals sounded harmonically have probably been led to follow this—the melodic—order and method, because in both the melodic and the harmonic study of intervals, the intervals from the keynote, which form the major common chord of this note, seem to claim the attention first of all, and to lead up to the study of the other intervals formed above the keynote. The correspondence in the two orders, is however, not absolute even as far as the intervals of the common chord, because in the melodic study of intervals, it is obvious that the major second will almost invariably come first of all, leading up to the major third, while in the harmonic study of intervals the major second being a discord would not be introduced until considerably late in the series, when it would most suitably be shown formed between the fourth and fifth

degrees of the scale, as the inversion of the interval of the minor seventh upon the Dominant. Beyond the fact that in the study of both melodic and harmonic forms, the intervals of the common chord, being in both forms very familiar intervals, demand early attention, there is really little which can legitimately influence the order of both melodic and harmonic intervals to move along parallel lines. With reference to the special character which a melodic interval seems to possess or exhibit when formed above the keynote, it must be obvious that such character is not only not necessarily possessed by this interval when formed melodically between other notes of the scale, and certainly cannot with any justification be associated with the interval sounded harmonically in isolation. The special conditions therefore which determine the order and method of presentation of intervals for harmonic study, differ fundamentally from those which influence such matters in the melodic study of intervals, in spite of the fact that they may possess some aspects in common. [Some of the misconceptions which may arise by confusing the two orders, will be better understood when the pupil has reached the study of the perfect fourth.] In our study of the various intervals sounded harmonically, any order and method of presentation which we adopt must be based entirely upon the nature and character of the various intervals sounded harmonically, and the presentation of this aspect of them to the pupil under the most familiar and favourable conditions, and under conditions which will help the pupil to understand their technical name and classification.

VII. Chords — the Order of their Presentation. — From a study of the various intervals an immediate advance is made to the study of chords in four parts, this being the usual number of parts in which chords are employed in simple harmonic progressions. The order in which the various chords are introduced corresponds very closely to that which has been adopted by the author in his "Method of Teaching Harmony, based upon Ear-training." The reasons for the adoption of this order in the study of Harmony, are fully discussed in the introductory chapter "To the Teacher" of Part I of that work, and the slight modifications of it which are introduced in this book, are due to the fact that some considerations which influence the order of study of the various chords in Harmony, have little or no weight in the framing of an order for their study in Ear-training. The chief underlying principle of the order employed in both subjects, is the introduction of the various chords (so far as this is possible) in the order of their familiarity in sound, making at the same time some slight allowance for the manner in which the various chords are gradually built up, and also for a balance of convenience gained by presenting some inversions immediately after the original position of a chord.

VIII. Methods of Presentation and of Illustration.—In presenting an interval (or a chord) to a pupil for the first time, it is often most helpful to him, if the particular interval (or chord) under consideration can be illustrated by reference to some passage or progression with which he is already familiar and in which this special

combination is employed in a prominent manner. The resourceful teacher, whose knowledge of music covers a fairly wide range, can frequently lighten his own labours and make his teaching much more interesting, if he is able to select suitable illustrations of the interval (or chord) under discussion, from the knowledge of music which his pupil already possesses. How far this method can be employed must depend partly on the knowledge of music possessed by the pupil, and partly upon the skill of the teacher in discovering this and laying it under contribution for the purposes of illustration. When we are dealing with young children there is probably very little in their mental storages which can be drawn upon for the illustration of harmonic combinations, except in the case of those children who play the piano, and thereby come into direct and frequent personal contact with chords and harmonic progressions of various kinds. The mental musical storages of the average child are, as one would naturally expect, almost entirely of a melodic character, being fragments of tunes heard or sung at school, at church, or in the home circle. The case of the average music student who has passed beyond the years of childhood will, however, be quite different. There are very few of this class who will not have entered upon the systematic study of some musical instrument long before they have commenced the study of harmony and harmonic ear-training, and if this instrument is not a keyboard instrument, like the piano (the music of which is essentially harmonic in character) the piano will probably be brought into connection with it as an accompanying instrument, and the sound of all the more familiar harmonic combinations will have become familiar to such a student. Most music students, however, in addition to possessing a knowledge of the music belonging to their own special instrument, are also familiar with a large amount of music of other kinds, such as the more popular hymn tunes, national and folk songs, sacred and secular choral works, and instrumental music of various kinds, and provided that the teacher can take advantage of such storages, these will offer a not less fruitful and possibly even more varied, suggestive, and extended field for the selection of illustrations than that offered by the musical literature belonging to some one special instrument. Although this method of illustration will be employed in connection with some of the intervals, yet, as will be seen in subsequent chapters, it is more generally employed and it is much more valuable when applied to illustrate the musical character and function of chords. In selecting illustrations of intervals, chords, or progressions of such, those coming at or near the beginning, or the end of a composition, or at the beginning or end of some important section, or which, in some other way, are thrown into exceptional prominence, are naturally of greater value for this purpose than those which occupy less prominent positions. The former are more readily recalled to the mind, and their musical effect is more likely to be accurately remembered.

In addition to the direct assistance which this method of illustration will be to both teacher and pupil, it will also serve to emphasise the fact that although the pupil is being introduced to certain intervals and chords, in this particular manner and order, apparently for the first

time, yet with the sound of the large majority at least, he is already quite familiar, from the fact of their frequent occurrence in the music which he has heard or studied. The chief object of this training for a large number of students, will be the acquisition of the power of readily discriminating one interval or chord from another by their sound, and from their sound being able to correctly describe and classify them, and to write them down in musical notation. Except in the case of novel and unusual combinations, or of familiar combinations employed in some new and original manner, the number of harmonic combinations requiring absolute memorization by the music student of average musical experience, will probably not be great.

IX. Exercises—Dictation Exercises, and Reading Exercises. —The most valuable form of exercise in the teaching of this subject, and the only form which possesses any value in the early stages of its study, is the ear exercise, pure and simple; that is, the describing or the writing down in musical notation of what is played over, either single intervals or chords, or progressions of such. Dictation exercises of this kind are the only complete and efficient tests of the extent to which this particular kind of knowledge (knowledge of the sound of all kinds of harmonic combinations and the power of representing these in musical notation) has been acquired by the pupil. The chief difficulty, however, in connection with such exercises is that the pupil can never work them by himself, he always requires the assistance of another person possessing sufficient musical intelligence and executive ability to dictate such exercises to him, that is, to play them over upon a suitable musical instrument. As efficient help of this kind is not always available, the pupil should be encouraged to supplement his dictation exercises with frequent exercises in the "reading" of music, in which very similar mental processes are gone through as in dictation exercises, except that they proceed in the opposite direction. Such reading exercises should be of a similar grade of difficulty to his dictation exercises, or they may be slightly more difficult, and the ear-exercises given herein may be employed for this purpose, or exercises may be chosen from suitable outside sources, such as unfamiliar hymn-tunes, chants, etc. Having selected an exercise for this purpose, the pupil should proceed to build up in his mind, chord by chord, the musical effect of the whole progression or passage. When he has gained what he believes to be a clear mental idea of its effect he should play the passage over on the piano and compare the real effect of the passage with what he had conceived in his mind would be the effect. If they do not absolutely correspond, he should note carefully the points in which they differ, and memorize the correct musical effect of combinations which he had conceived incorrectly. The pupil will find that regular practice of this kind, supplementing the dictation exercises, will greatly assist him in developing his powers of musical memory and musical thought.

X. The Special Difficulties of Dictation Exercises.—While, however, exercises in the reading of music may be employed to supple-

ment dictation exercises (a very similar mental equipment being required to overcome the difficulties presented by either form of exercise), yet the writing of harmonic progressions from dictation makes considerably greater demands upon the powers of observation, of discrimination and of memory, than the reading of music, because there must always be the greatest readiness in bringing these various powers into instant and complete operation, if the special difficulties presented by dictation exercises are to be successfully overcome. In order to write down correctly a harmonic progression from dictation, the listener must not only be able to hear and consciously note everything which is sounded, to associate what he hears with its representation in musical notation, to analyse the manner in which the various chords are built up, to follow the progression of one chord to the next, and to retain the whole progression in the mind for an appreciable time, *but his powers of observation, discrimination and memory must be so under the control of the Will that they can be brought into instant operation and exercised in their fullest capacity upon what is required to be done.* On the other hand, the power of re-creating mentally harmonic progressions represented in musical notation, while bringing into operation some of these same mental powers, yet permits of their being brought into employment in a much more gradual manner, and makes no demands whatever upon that specially plastic memory power which enables a listener to retain in his mind for an appreciable time what is played over to him only two or three times. If, in the reading of music, the mental conception of the musical effect of a chord, represented in notation, presents any difficulty, this musical effect can generally be built up in the mind in a gradual manner from the notational signs, there is not that absolute necessity for an instant solution of the problem which is required in the writing of dictation exercises. In a harmonic dictation exercise formed of a progression of chords, if any chord is not immediately recognised, analysed, and intellectually retained, the next chord arrives and, by monopolising the whole attention, obliterates the effect of the previous chord, and what is also probable is that (unless the listener possesses a sense of absolute pitch) the musical basis of calculation is also momentarily lost, and the correct analysis of the chord which follows will be a much more difficult, if not an insoluble problem.

XI. The Difficulties of Dictation Exercises in connection with Special Chords.—In addition to the general difficulties presented by the writing of harmonic dictation exercises referred to above, there are various special difficulties which present themselves to the pupil from time to time in connection with exercises upon particular intervals and chords, and progressions of such. The most suitable place to discuss the nature of these difficulties seems to be when they appear in the regular course of teaching, and reference to them, therefore, is made in the body of the book. In order that the teacher's attention may be specially directed to them the titles and numbers of the various paragraphs are here given:—*The tendency of intervals sounded next to one another to mentally coalesce in the mind of the listener* (pars. 11 and 26);

Methods of dictation (61); *The movement of the outside parts considered from the listener's standpoint* (64 and 72); *The special difficulties of Suspensions, both to the pupil in the listening to them, and to the teacher in the playing of them upon the piano* (113).

XII. HARMONIC EAR-TRAINING IN ITS RELATION TO MUSICAL EDUCATION.—In a previous paragraph we stated that the ultimate end of the study of harmonic ear-training was the training and developing of the powers of observation, of discrimination, of memory, and of thought, in connection with the harmonic material of music, and, side by side with this training, the imparting of such related knowledge as would enable the individual to represent what he hears and remembers, or what he shapes in his own mind, in musical notation. If, therefore, this branch of ear-training is the chief educational instrument by which these mental powers are trained and developed, every branch of musical education which requires the efficient and intelligent exercise of these powers must devote some attention to its study. It is important, therefore, that the teacher should understand the relation which this subject bears to other subjects of study as well as to musical education in general, and from these points of view we shall now briefly consider it.

XIII. HARMONIC EAR-TRAINING IN ITS RELATION TO THE STUDY OF HARMONY AND COMPOSITION.—The exercise of the power of harmonic thought seems at first sight to specially belong to the study of musical composition—to the mental conception and fashioning of musical ideas arising in the mind of the individual, as the expression of some form of emotion. This is obviously the highest and most advanced kind of operation into which it enters. It is, however, brought into employment in musical studies of a much simpler character, as for instance, in the harmonization of either unfigured basses or melodies in which the pupil has to select the chords to be employed, and when any intelligent decision must be based upon the ability of the pupil to re-create in thought, to hear in his mind the sound of the various *possible* chords which may be employed to harmonize such bass or melody, and from the possible ones to choose those which produce the most satisfactory musical effect. Even when any particular chord has been decided upon, the most satisfactory musical distribution of the parts can only be secured with certainty when the pupil can mentally realise the different musical effects which a chord can produce, according to the distribution and doubling of its several notes. While the ultimate goal of the study of harmony is the study of musical composition, yet the large majority of those who study it rarely proceed further than the harmonization of unfigured basses and melodies, and the construction of short passages to illustrate either the employment of special chords or of modulations; but, however limited may be the scope of the study, no method of teaching it can possess real value for developing and training the *musical powers* of the pupil unless an essential part of the method is the training of the mind through the ear in the observation, the discrimination, and the memorization of the harmonic materials of music.

XIV. HARMONIC EAR-TRAINING IN ITS RELATION TO THE WORK OF THE CHOIR-TRAINER.—The exercise of the power of harmonic thought, and of those powers which lead up to this, is, however, by no means confined to the study of those musical subjects which are frequently described as "theoretical studies," but their exercise enters very largely into every form of practical musical work, while the possession of them in a comparatively high degree is a fundamental condition of success in some of the most practical departments, as, for instance, in the training of choirs and orchestras and any work of a similar nature. In all such work, the mental operations proceeding in the mind of the choirmaster (whom we may regard as the representative musician of this class) so closely resemble those which take place in the mind of the student, when writing down dictation exercises, that a brief analysis of these mental operations may not be uninstructive. The choirmaster stands before his choir, while on the desk immediately in front of him is the musical composition his choir is about to sing. Previous to starting his choir, he glances at the music with the object of creating or building up in his mind the musical effect of what is there represented in notation, so that before his choir begins to sing, he has in his mind a clear and definite idea of the musical effect they should produce if they sing correctly. This implies, on the part of the choirmaster, the power of readily *reading* music at sight, or of translating into clear and definite musical thought whatever is presented to him in musical notation. The next operation is for the choir to start singing—the choirmaster, meanwhile, listening carefully and critically to the sounds they produce. During this time he is not only exercising the most critical kind of observation, but he is comparing what he hears either with what he has retained in his mind of the music before him or with the musical effect of what is represented upon the printed page before him, and to which he may have to constantly refer. He is, in fact, doing something which approximates very closely to a musical dictation exercise, except instead of writing down what he hears, he is comparing it with the music before him and noting how far *what is sung* absolutely corresponds with *what should be sung*. These two operations—(1) the building up in the mind the musical effect of what is represented in musical notation, and (2) the comparing of what the choir sings with this, and noting any points of difference—are proceeding continuously and mingling together the whole time the choirmaster is actively engaged rehearsing his choir, and it is upon his power of rapidly and accurately performing these operations that his success as a choir-trainer must largely depend. A moment's consideration will show that this complex power, and the efficient exercise of it, must depend upon the manner in which the mind is trained to observe or carefully listen to all kinds of harmonic combinations, to discriminate one harmonic combination from another and to retain and store up in the mind their different musical effects, and to re-create them as mental musical effects at the command of the Will. Whatever powers of sympathy, of imagination, of interpretation, or of personality an individual may possess, the power of accurately reading music—of mentally building up what is represented

in musical notation—and the power of comparing what is sung with this mental musical conception, must always remain the chief fundamental condition of success in such work. These powers alone will not produce a good choir-trainer, but those who do not possess them, and who are unable to acquire them, can never become efficient choir-trainers, whatever other qualities they may happen to possess.

XV. HARMONIC EAR-TRAINING IN ITS RELATION TO THE WORK OF THE PIANO TEACHER.—Although the special work of the trainer of choirs and orchestras seems more nearly related to and to resemble this branch of musical study, and requires this special kind of training, more than the work of other teachers, yet if we consider the work of teachers of different keyboard instruments, into the music of which harmony very largely and continuously enters, we shall find that these same mental operations enter in no small degree into their work, and that teachers of the piano and the organ have continually to be exercising their powers of observation, of musical memory and thought, in connection with harmonic combinations. While such teachers, by continuous and rapid movements of the eye from the music to the keyboard, are able in very slow and simple music to compare what is being played with what is printed, yet it is obvious that the extent to which this is possible must be a very limited one, and the competent teacher is continually exercising his musical memory while he watches the hands of his pupils to observe their method of technique, and continually exercising his ear in criticising what is played while he is following the music on the printed page. Any teacher who was continually compelled to look at the keyboard to discover whether his pupil was playing correctly (except, perhaps, in the details of contrapuntal music played upon the piano, when the tone of long sustained notes may almost disappear) would prove himself to be of very doubtful competency.

XVI. HARMONIC EAR-TRAINING AS AN INSTRUMENT FOR THE TRAINING OF LISTENERS GENERALLY.—While the previous paragraphs have shown that the study of harmonic ear-training must occupy a position of no small importance in any complete scheme of musical education, yet apart from musical training of an advanced character, and merely in the training of those who aspire to be intelligent and critical listeners, it is an educational instrument of great value. The tendency of the ordinary untrained listener is to hear little, if anything, beyond the highest part, unless another part, because it is louder than the others, is thrown into exceptional prominence. This instinctive concentration of the listening powers in one direction is due to a variety of causes, some having their origin in the nature of the music, some in the nature of the mind of the individual. With regard to those directly connected with the music, two of the most potent are accounted for by the facts that, under normal circumstances, the highest part is the easiest to follow and to listen to, and also, in a vast amount of music, the chief and frequently the entire musical interest of the composition is centred in that part; therefore, in listening to such music, there is every inducement to follow this part and to give no

detailed attention whatever to the other parts. The causes, which have their origin in the mind of the listener, require a somewhat fuller explanation. During the Modal Period—which came to an end about 1600, and of which the great representative composer was Palestrina—music was of a purely contrapuntal character, every part being of equal interest and importance, and there is no doubt that, as a result of the special character of the music itself and of the musical environment or atmosphere created by the frequent performance of this kind of music, the listener instinctively distributed his attention over the whole combination of parts, and was probably able to follow an inner part with little (if any) more difficulty than an outside part—at least, as the music of this period cannot be intelligently listened to in any other manner, it is a reasonable inference to suppose that it was habitually listened to in this manner. The breaking-up of the modal system, and the passing away of the special style of composition which was associated with it—followed by the gradual development of music based upon modern tonality and upon a harmonic basis, in which for a long period the melodic interest was almost invariably centred in the highest part, with a very slender and obvious harmonic accompaniment—inevitably in time influenced the minds of listeners, both by attracting their attention specially towards the highest part and also by supplying them with little in the under parts which either required or encouraged them to give these parts much serious and detailed attention. In the course of time, therefore, the average listener, deriving nearly the whole of the pleasure he obtained from listening to music with the least possible mental effort—that is, by listening only to that which was most prominent and most easily listened to—gradually lost the power of listening in any intelligent and detailed manner to less obvious parts, without making a special effort to do so. This mental peculiarity, trait or deficiency, which is still a characteristic feature amongst all classes of music students and music audiences, is most effectually remedied by the study first of harmonic ear-training and then, later on, of the more advanced subject of contrapuntal ear-training. The directing and concentrating of the attention upon the various chords introduced in some suitable order, the training of the mind to realise the full musical effect of these and the different effects which may be obtained by different distributions of their several notes, the training of the ear to follow the bass part and the progression of one chord to the next (all of which are included in harmonic ear-training), as well as the more advanced study of training the ear to follow the progress of passages formed of a combination of two or more melodic parts—as is the special province of contrapuntal ear-training—are probably the most valuable means for developing in the individual the power of accurate and intelligent listening. It is a common saying, in connection with general education, that an individual sees only what he is taught to see, and in matters musical it is equally true that the listener hears only what he is taught to hear, and if he is never trained to direct his attention to any part but the highest, or perhaps also, in a casual way, the lowest, he will probably hear but a small portion of the beauty of modern music—

which, being largely a combination of both contrapuntal and harmonic styles, generally possesses a large amount of melodic interest, which is not revealed in the highest part. The power to follow a complex combination of intricate and independent parts in an intelligent and critical manner can only be acquired by those possessing natural aural powers and sensibilities of a fairly high order, at the same time, the smallest mental capacity can always be improved by systematic training and regular exercise.

[See also Part II Contrapuntal Ear-training; Introductory Chapter (B) To the Teacher.]

CHAPTER I.

HARMONIC EAR-TRAINING—ITS NATURE AND METHOD.

1. By harmonic ear-training is implied the training of the mind through the ear to successfully perform the following operations :—

(i) To critically and intelligently listen to all kinds of harmonic combinations—intervals, chords, and progressions of such.

(ii) To discriminate or distinguish between the sound of different intervals and chords, and to recognise and describe all such from their sound.

(iii) To retain the sound of the intervals and chords in general use in the mind; to associate the musical effect of each with its correct technical name and the manner of writing it in musical notation.

2. These objects are attained by presenting to the mind, in some suitable order and manner, the various intervals and chords employed in music, by illustrating the musical character and effect of each of these in a manner which will most clearly and definitely impress this upon the mind, and by training the memory to retain this musical effect and associate with it the technical name of, and the manner of writing in musical notation, the interval or chord to which it belongs. These powers of observation, of discrimination, and of memory are exercised in connection with each interval and chord by different forms of ear-exercises, which may consist either of single intervals or chords to be verbally described from their sound, or short progression of such, to be written down from dictation.

3. In presenting to the mind the various harmonic combinations, it is obvious that the study of intervals—which are merely combinations of two notes—will precede the study of chords—which are combinations of three or more notes; also, in each class (intervals or chords), the consideration of the consonant—or what may be called the self-dependent—combinations, must precede the consideration of the dissonant combinations, which require to be followed by some consonant combination; and furthermore, whether interval or chord, consonant or dissonant, the familiar combinations will precede those which are less familiar, so far as this can be arranged consistently with the formation of the various intervals and chords in some systematic manner.*

*** *For a fuller discussion of the matters mentioned in this chapter the reader is referred to the previous chapter addressed*—TO THE TEACHER.

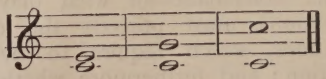
* As many important matters referring to the classification and treatment of intervals and chords belong rather to the subject of Harmony than to that of Ear-training, those who wish to study such matters in detail are referred to the author's "*Method of Teaching Harmony based upon Ear-training.*"

CHAPTER II.

THE CONSONANT INTERVALS.

4. As was stated in the previous chapter, the study of harmonic ear-training begins with the study of the musical character of the various consonant intervals sounded harmonically—that is, when the two notes forming the interval are sounded together. The three most important consonant intervals are the major third, the perfect fifth, and the perfect octave, and these, when formed above the same bass note and sounded simultaneously, produce the most familiar chord in existence—the major common chord. The intervals of this chord, therefore, supply us with the most suitable starting point in the study of intervals, as, later on, the chord itself supplies us with the most suitable starting point in the study of complete chords.

5. **The Intervals of the Major Common Chord—the Major Third, the Perfect Fifth, and the Perfect Octave.**—These three intervals may be introduced to the pupil in almost any order. The order in which they are naturally formed (the third, the fifth and the octave) is the one frequently adopted, at the same time, some teachers prefer to begin with the perfect fifth because of its musical strength, while others begin with the octave because it is most easily recognised. In any case, the exact order is not a matter of any great moment, as these intervals, formed from the same bass note, will be presented immediately after each other and thrown into definite contrast, so that the pupil may have his attention directed towards the special musical character of each and learn to readily discriminate one from the other by their sound.

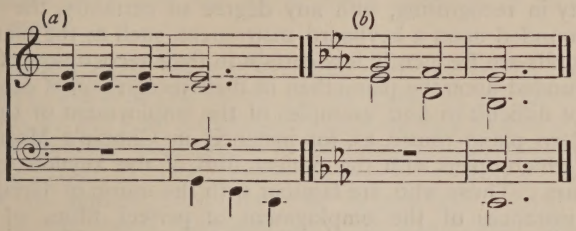
Ex. 1. 

If it helps the beginner to more readily associate the name of either of these intervals with its sound, or to discriminate between them when they are presented to him, we may legitimately mention that the character of the major third suggests "warmth and richness," that of the perfect fifth, "strength with bareness," and that of the perfect octave, "strength with smoothness."

6. **Illustrations of the Major Third** (read To the Teacher, par. VIII).—The most familiar and striking illustration of the employment of the major third is probably the opening of Handel's "Dead March" from "Saul," which is almost identical with the far less familiar opening of Mendelssohn's "Overture in C for a Military Band,"

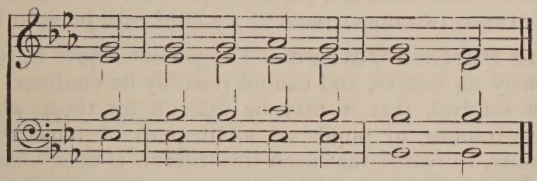
shown in Ex. 2 (*a*), while another illustration is the opening of Beethoven's Piano Sonata in E flat, Op. 81, shown in (*b*).

Ex. 2.



In the above-mentioned illustrations the major third is heard quite alone, as, however, familiar illustrations in two parts are not frequently to be met with in positions of such exceptional prominence, the above may be supplemented, whenever necessary, by others in which the major third, although not heard alone, but as forming part of a chord, is yet thrown into considerable prominence, as in the following familiar line:—

Ex. 3.

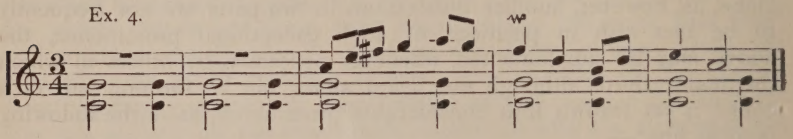


At first sight it might seem unnecessary to employ all these illustrations apparently in order to enable a pupil to correctly discriminate the major third from the perfect fifth or the perfect octave, but it will not be long before the intervals of the minor third, and the major and the minor sixths are introduced, and it is the sound of these intervals (rather than that of the fifth and the octave) which the pupil is likely to confuse with the sound of the major third; therefore, the clearer and more definite the idea which he acquires of the musical effect and character of the major third, and of all these early intervals—these foundation stones of his knowledge of the sound of harmonic combinations—the less likelihood is there of his falling into error and confusion later on, when other intervals are introduced.

7. **Illustrations of the Perfect Fifth.**—When introducing the interval of the perfect fifth, the illustration which will probably suggest itself to the mind of the Teacher first of all will be the sounding together of two adjacent strings upon such instruments as the violin, the viola, or the 'cello; at the same time, too much importance must not be attached to a knowledge of the sound of perfect fifths heard in this manner. It is a curious fact, but one which several teachers of ear-training have remarked, that amongst their pupils, those who habitually play one of the above-mentioned string instruments, and who

are, therefore, continually exercising their ears in listening to perfect fifths sounded harmonically upon their special instrument, find no small difficulty in recognising, with any degree of certainty, the perfect fifth when sounded upon a keyboard instrument, such as the piano ; in fact, such pupils are frequently less certain in their recognition of the perfect fifth sounded upon the piano than in their recognition of other intervals. It is not difficult to find examples of the employment of the bare fifth in modern piano music, as, for instance, in Chopin's Mazurka, Op. 6, No. 3, which opens with the perfect fifth of the keynote repeated for four bars. Those who are familiar with the music of Greig will recall many instances of the employment of perfect fifths, of which the opening bars of his "Springtanz" may be taken as a type.

Ex. 4.

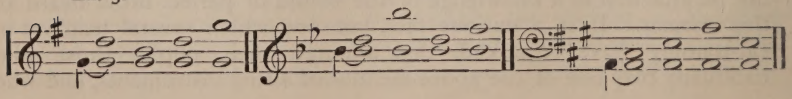


A familiar illustration of a perfect fifth thrown into prominence, when formed between two upper parts of a chord, will be seen in Ex. 71.

8. **The Perfect Octave.**—The perfect octave is, to most people, so obviously an octave, and cannot possibly be confused in sound with any other interval, that it may be difficult for those who have never taught ear-training to pupils of all degrees of musical capacity and non-capacity, to realise that even this interval is occasionally incorrectly described in ear-exercises. The octave, being merely the duplication of a note, does not lend itself to any kind of illustration or association which would be of value to a pupil who could not recognise this interval under other circumstances, but, as when it is incorrectly described it is generally confused in sound with that of the perfect fifth, these two intervals—octave and fifth—should be thrown into contrast in various ways.

9. **Ear Exercises.**—The Teacher should now exercise the pupil's ear in recognizing these three intervals from their sound by presenting them in various orders, but each series being formed above the same note, as shown below. Exercises of this kind should be given in many different keys, covering the middle compass of the keyboard. In the first of such exercises, the pupil should simply decide the nature of the interval, and should be kept in ignorance of all matters referring to its key or pitch ; afterwards, the lower note—the keynote—should be named beforehand, and he should then both describe the interval and name its upper note.

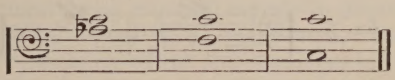
Ex. 5.



*** *The Ear Exercises which are given in connection with the various intervals should always be supplemented with others of a similar character, by the Teacher, who will give few or many according to the needs of individual pupils.*

IT IS POSSIBLE THAT SOME TEACHERS MAY PREFER TO OMIT, FOR THE PRESENT, PARAGRAPHS 10 TO 13, OR EVEN UP TO PAR. 21, AND TO PROCEED AT ONCE TO A GENERAL STUDY OF THE PERFECT FOURTH AND THE REMAINING CONSONANT INTERVALS BEFORE PROCEEDING TO A DETAILED STUDY OF THE SEVERAL INTERVALS IN THE DIFFERENT RELATIONS IN WHICH THEY MAY BE PRESENTED. THE AUTHOR FEELS THAT ALL SUCH MATTERS MAY BE LEFT FOR INDIVIDUAL TEACHERS TO DECIDE, IN A MANNER BEST SUITED TO MEET THE IDIOSYNCRASIES OF THEIR VARIOUS PUPILS.

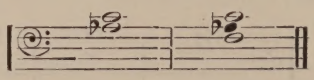
10. **The Major Third, Perfect Fifth, and Perfect Octave formed below a given note.**—After the pupil has become familiar with the musical effect of these intervals when formed above some given note, they may then be introduced to him as formed below a note, thus :—

Ex. 6. 

In presenting the perfect fifth and major third formed *below* some note, as shown above, we immediately introduce them in an entirely new aspect to that in which they appeared when formed above it. This is due to the fact that their formation below a note suggests the employment of a different key to that of which the given note C (the higher note of the interval) would be the keynote. Thus the major third and perfect fifth above C are not only two important notes in the key of C, but they form with C the Tonic common chord of that key. If, however, we sound these two same intervals formed directly below C, the lower note of the interval immediately assumes the character of a Tonic and we feel that we have left the key of C, thus the sounding of C and A flat (below) gives us the impression that we have gone from the key of C into that of A flat, of which C is the mediant, while in sounding C and F (below) we feel that we have gone into the key of F, of which C is the Dominant. This is due to the fact that, when any interval or chord is heard in isolation, the mind generally associates it with the most readily recalled corresponding interval or chord, and the most familiar chord represented by a major third or a perfect fifth is the Tonic chord. Another fact which influences our mind in its attitude towards intervals which are presented to it, is that in music we have always been trained to think from the lowest note upwards, both in the building up of scales, the formation and calculation of intervals and of chords, all of which, both practically and theoretically, are first of all presented to us as formed from their lowest note. We rarely have our attention directed to such combinations built downwards, and when we

do have them presented to us definitely formed in this manner, we still instinctively think of the lower note of such intervals as the major third or the perfect fifth, heard in isolation, not only as a root, but as a Tonic root.

11. **The tendency of Intervals sounded next to one another to mentally coalesce.**—It is most important when we are presenting intervals "in isolation" for the first time, to present them so that they are perceived in the mind in *complete isolation*, that is, we must be careful that the notes and musical effect of the interval previously heard are not still persisting in the mind when the next interval is sounded, and by coalescing with the notes of this interval interfere with the perception of its simple musical character. Thus, in presenting the two last-mentioned intervals—the major third and the perfect fifth formed *below* C—if we present them in this order, that is, C A♭—C F, and the effect of the A♭ is still persisting in the mind when C F is presented, the effect of the latter interval (C F) will tend to suggest the minor common chord of F rather than the major chord.

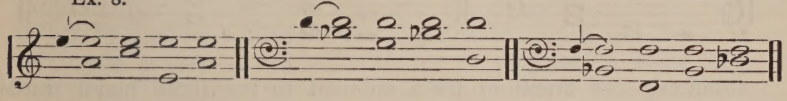
Ex. 7. 

This difference, however, is not one of great importance, as it does not interfere with our perception of C F as a perfect fifth. A greater difference will be noticed if C F is presented before C A♭, and if the effect of C F is still persisting in the mind when C A♭ is presented, we then hear C A♭ merely as the upper notes of the minor common chord of F, and the effect of C A♭ heard in this manner is far less striking than when it is presented so that the A♭ sounds as the root of the chord of A♭. In this latter case, the note A♭ strikes us as something absolutely new and unexpected, while in the other instance, as the chord of F has been definitely suggested, it is only the matter of major or minor which has been left undecided and which the A♭ decides. The effect of C A♭ is less striking and characteristic as the higher notes of the minor common chord of F than as the lower notes of the major common chord of A♭. The tendency of intervals, sounded next to one another, to coalesce in the mind of the listener must not be forgotten by the Teacher, as such unconscious combining of different intervals in the mind hinders the perception of the simple musical character of the interval under consideration and introduces a new and (in these early stages) disturbing factor into the problem of correctly discriminating them. The major third and the minor third are the most dangerous intervals in such matters, because they enter into the formation of so many familiar chords, such as triads, chords of the seventh, and their inversions.

12. **Ear Exercises.**—The Teacher should exercise the pupil's ear in recognising these intervals when formed *below* some given note,

each series being formed below the same note, as shown below. In the first of such exercises the pupil should simply describe the nature of the interval, but afterwards (when he has been told the upper note) he should also name the lower note.

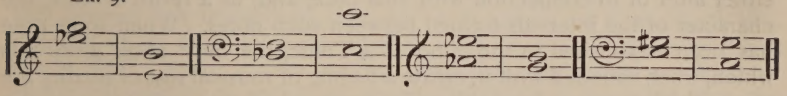
Ex. 8.



13. **The formation of Intervals from notes arbitrarily selected from the Chromatic Scale.**—Besides the two previously-mentioned methods of exercising and testing the pupil's knowledge of the sound of the various intervals, that is when they are formed either above or below some given note, there is another method which is frequently employed, namely, the sounding of intervals, one after the other, which have no tonal connection or relation with one another, in other words, the sounding of intervals, the notes forming which are arbitrarily selected from the notes of the chromatic scale (as shown in Ex. 9), the pupil being required merely to describe the nature of interval, no alphabetical names being mentioned. Ear exercises of this kind test a pupil's quickness of ear and readiness in the recognition of the various intervals when these are presented under arbitrary and unnatural conditions.

Ear Exercises.—After the pupil has heard and correctly described any interval sounded in this manner, he may be told the name of one of its notes and then be required to name the other note.

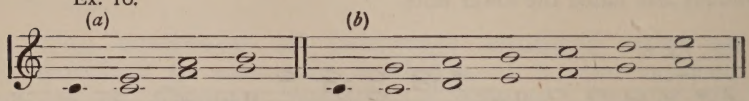
Ex. 9.



14. **The influence of Tonality upon the character of Intervals.**—Hitherto these three intervals have been presented in a manner in which only their simplest musical character has been exhibited, that is, so far as they have been presented in some established tonality, they have always been formed so that the lower note of the interval, if it possessed any kind of tonal character, was that of Tonic, although even so far as this character was present, in the absence of other related intervals it remained largely undefined. These intervals, however, can be formed in positions between notes of the major scale, when the lower note would not be the keynote. Thus, taking the scale of C major as representing the major scales, we can form major thirds upon both the fourth and the fifth degrees of the scales as well as upon the first, as shown in Ex. 10 (*a*), and we can form perfect fifths upon

every note of the scale except the seventh degree, as shown in Ex. 10 (*b*), while a perfect octave can, of course, be formed upon every note.

Ex. 10.

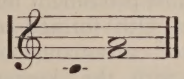


Confining our attention for a moment to the three major thirds which it is possible to form between notes of the major scale, if, after we have definitely established the key of C major in the mind of the listener (by playing a perfect cadence or some other suitable progression in that key), we sound these three major thirds, one after the other, it is impossible not to hear that there is a very distinct difference in their musical characters. As all these three intervals are exactly the same in size, this difference must obviously be due to their different positions in the scale, to the different notes between which they are formed, and the relation which these bear to the keynote, or in other words, to the influence of tonality. After a pupil has learned to recognize an interval in its simplest character, the next step must be to consider the direction in which the bare musical character of an interval becomes, in a sense, *coloured* by its being formed in different positions in the scale of an established key.

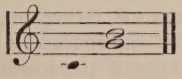
15. **The musical effect created by the establishment of a Key.**—In order to understand the tonal relation existing between the several notes of a scale, we must first of all glance at the effect which is produced in the mind by the establishment of some note as a Tonic or keynote, and the manner in which this determines the tendency of other notes of the scale, when sounded either after or in connection with this note, and, as a result of this, the character of the intervals formed between such notes. When some note has been established in the mind as a Tonic, the only notes *above* this which, when sounded with it, create a feeling of musical rest or finality are those which together form the common chord of this note—that is, the three intervals which we have considered. The other notes of the diatonic scale, when sounded either melodically immediately after the Tonic, or harmonically with the Tonic, all exhibit definite tendencies to proceed to an adjacent note of the Tonic common chord; thus the second and fourth to the third, the sixth to the fifth, and the seventh to the octave. This tendency of the several notes of the scale to produce either a feeling of rest, or else to exhibit a tendency to proceed to other notes, is the origin of what is understood by the "mental effect" of the various notes of the scale when this term is employed in the teaching of elementary sight-singing and melodic ear-training. It will be obvious, therefore, that directly we employ, in the formation of intervals, notes other than those forming the Tonic common chord, the character of intervals so formed must to some extent be affected or, in a sense, coloured, owing to the tendencies of the notes which form the interval,

and also to the extent to which an interval may be susceptible to this kind of influence. Whenever, therefore, we form an interval in a key which has been definitely established in the mind of the listener—either or both of the notes of which interval are not notes of the Tonic common chord of that key—we immediately introduce a new element into the problem of recognizing and correctly describing the interval, because it thereby acquires a distinct colour or tonal character, and also its notes frequently acquire a distinct tendency to progress in some definite manner. While these distinguishing features cannot be separated from, or viewed apart from, the notes sounded, yet they can be perceived as something quite distinct from the purely numerical measurement of the interval, as may be easily shown in connection with the major third.

16. **The Major Third formed in different parts of the Scale.**—If middle C and the E above be sounded on the piano simultaneously (apart from any established key), this interval may be regarded as a pure major third. There has been nothing sounded which will hinder the listener from concentrating the whole of his listening powers upon the simple, uncoloured musical character of this interval. Suppose, however, we establish C as a keynote, and then, instead of sounding C and E as before, sound F and A, as shown below.



In this case, it is probable that the first thing which will arise in the mind of the listener is not necessarily the fact that these two notes together form a major third, but rather that they reveal very distinct tendencies to proceed downwards to E and G. In some minds, this fact thrusts itself forward to the exclusion of all others, and only after the listener has recognized this, and also, partly as a result of this, decided which notes form the interval, does he mentally describe it as a major third. Again, if after middle C has been established as a keynote, this is followed by G and B (as shown below), it is probable that the first fact about this interval which arises in the mind of the listener is that it also reveals a progressive tendency (although quite different to that suggested by the sounding of F and A), and we realise a certain amount of mental tension in listening to this interval, which is not relieved until the higher note B rises to C.

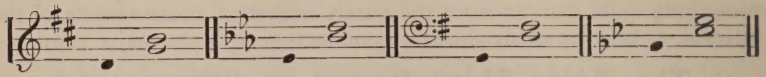


In each of these examples, therefore, the musical character of the major third is very distinctly coloured in a special manner, and this is due to the tendencies or mental effects which the notes forming the interval have acquired as a result of being presented in some definite tonality.

What is said here with reference to intervals applies also to chords, as will be seen in subsequent chapters; thus the different musical characters and effects of Tonic, Dominant and Subdominant triads, all of which are major common chords, are partly due to the difference of the mental effect and the tendencies of the notes of which the several chords are formed.

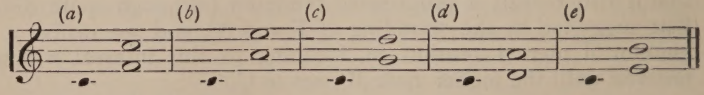
Ear Exercises.—The pupil should be exercised in recognizing the major third formed upon the fourth and fifth degrees of the scale in various major keys, as shown below. In each exercise the key should be established beforehand.

Ex. 11.

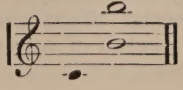


17. **The Perfect Fifth formed in different parts of the Scale.**—In the presentation of the perfect fifth at different positions in the scale, the special character of the perfect fifth, and the fact that it really represents and suggests the root position of a common chord, seems to make it less susceptible to this kind of tonal influence than intervals which, because they enter into the formation of many kinds of chords and inversions, possess a less strong and forceful musical character. The most prominent feature in connection with the presentation of the perfect fifth formed above notes other than the Tonic will be the degree of consonance or dissonance which any fifth produces in connection with the keynote, when this is sounded immediately before the fifth, and its sound is still persisting in the mind as a basis of calculation, when the other notes are sounded. When the keynote is consonant with both of the notes forming the perfect fifth—as is the case with the fifth upon the Subdominant and the Submediant, Ex. 12 (*a*) and (*b*)—we get the effect of the fifth undisturbed by any adjacent dissonant note. The fifth upon the Dominant (*c*) suggests a strong and familiar progression when sounded after the Tonic. The fifths upon the Supertonic and the Mediant (*d*) and (*e*) produce the least satisfactory effects because of the nature of the suggested harmonic progressions.

Ex. 12.

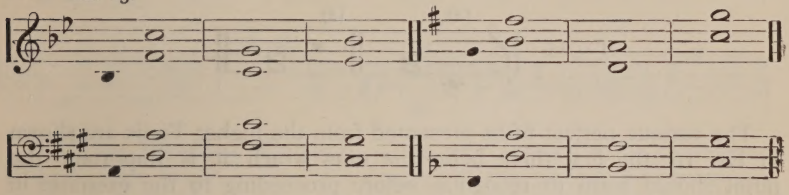


18. **The Perfect Octave** being merely the duplication of one note, is susceptible to Tonal influences of this kind only so far as to emphasise the special character of the lower note, as for instance in the following, where the desire of the B to rise is intensified by its being doubled.



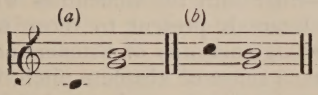
Ear Exercises.—The pupil may now be exercised in recognizing perfect fifths (as well as major thirds) in different positions in the major scale, as shown below—*the keynote to be sounded before each*—but it is not desirable that he should spend much time on exercises of this kind. The two most important at this stage are the fifths upon the Subdominant and Dominant, and as soon as he is certain of these two he may proceed to study the next paragraphs and the exercises which follow.

Ex. 13.



19. **The recognition of Intervals formed in different parts of the Scale when the higher Tonic is sounded.**—After these intervals have been presented in connection with the lower Tonic, they should then be presented in connection with the *upper Tonic*. When the higher Tonic is sounded as the basis for the calculation of the position in the scale of the various intervals, while the fact that these are formed either below this note, or around it, cannot alter their special musical quality as far as this is determined by the tendencies of the notes forming the interval, yet it does influence the degree to which this character is thrown into prominence. Thus the character of the major third upon the Dominant with the leading note as the higher note, is felt to be far more poignant and dissonant when sounded immediately after the lower Tonic—as in (*a*)—than after the upper Tonic—as in (*b*).

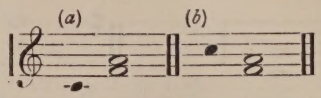
Ex. 14.



This is doubtless due to the fact that in the former case the higher part leaps a major seventh upwards from the lower Tonic (the basis of calculation) and forms, at least mentally, a specially striking and unfamiliar progression, while in the latter, it simply descends a semitone and forms a very familiar and commonplace progression. This major third illustrates the different degrees of prominence into which the special musical character of an interval may be thrown simply by presenting it after a higher or a lower Tonic. Although the character of none of the other intervals is affected to the same extent, yet the recognition of the position in the scale at which the interval is formed is a somewhat different problem when the higher Tonic is given than when the lower one is given, and this must be made a matter of special study by the pupil. The difference, which apparently does exist, may be due either to the nature of the melodic interval formed

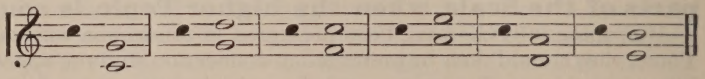
between the given Tonic and the higher note of the interval sounded, as is illustrated in Ex. 14, or to the nature of the chord which is formed by a combination of the given Tonic and the two notes of the interval, as would be illustrated by the third formed on the Subdominant shown below, in which the tendency of the notes forming the interval in (*a*) to descend is more strongly marked than in (*b*), and this is doubtless due to the fact that (*a*) has mentally the effect of a $\frac{6}{4}$ chord, while (*b*) the effect is of a triad in its root position.

Ex. 15.



The various perfect fifths presented from the higher Tonic are shown in Ex. 16, the first three being the ones which it is important the pupil should learn to recognize before proceeding to the exercises in par. 21.

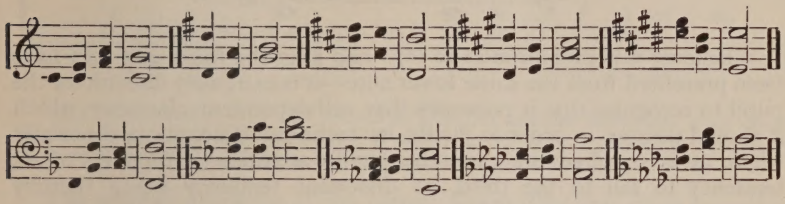
Ex. 16.



20. **The study of Mental Effect in connection with Intervals.**—It is probable that those persons who possess a sense of absolute pitch attach little importance or value to some of the foregoing considerations, because their natural endowments enable them to instantly decide the pitch of notes and the size of intervals without the necessity of referring such to some acquired standard of measurement; their own perception is so instantaneous, instinctive and complete, requiring no kind of mental effort or calculation, that they do not—in fact, they cannot—enter into the difficulties which the discrimination and describing of intervals present to those possessing small natural endowments. The large majority of listeners not only do not possess, and cannot acquire, a sense of absolute pitch, but many find considerable difficulty in acquiring, to any advanced degree, a sense of relative pitch. To the average music student, an intelligent appreciation of what is meant by the mental effect of the various notes of the scale, and the manner in which this will colour the musical character of intervals formed between such notes, is of the highest value, because, to some minds, the most prominent fact or quality of an interval is not its numerical size, but the tendency of the notes of which it is formed, and this, as we have already stated, often reveals itself to the mind before the exact numerical quality of the interval is perceived.

21. **Dictation Exercises in Major Keys upon the Intervals of the Major Third, Perfect Fifth and Perfect Octave, formed upon the Tonic, Dominant and Subdominant.**—Before playing an exercise over, with the object

of the pupil writing it down from dictation, the key should be established by means of a full cadence in the key being played, and a keynote of suitable pitch (having regard to the nature and pitch of the exercise) should be sounded. An exercise should not be played over more than three times.



22. **The Perfect Fourth.**—The next interval to be considered is the perfect fourth. The introduction of the perfect fourth in this position is desirable, not so much on account of its numerical position in the scale, but because it is the only remaining perfect interval which we have yet to consider (the perfect unison being an interval only in theory), and when we have introduced the perfect fourth to the pupil, he will have become acquainted with all the perfect intervals.

[The perfect octave, perfect fifth, perfect fourth, and perfect unison are called *perfect consonances*, because neither of these intervals can be altered without being changed into a dissonant interval Major consonant intervals, when reduced by a semitone, become minor intervals, but still remain consonant, The major and minor consonant intervals are therefore called *imperfect consonances.*]

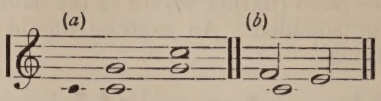
The perfect fourth stands in the unique position of possessing a dual musical character, namely, a consonant character and a dissonant character, and although in the technical classification of intervals this interval is placed among the perfect consonances, yet it is probably more familiar to the ear as a dissonance requiring definite resolution, than as a consonance. This is due to the fact that the attention of the ear is more readily directed to it when it is heard as a fourth above the bass note, than when it occurs between two of the upper parts of a chord, and when it is formed above the bass note, it is more often employed as a dissonance than as a consonance. When it occurs between the upper parts of a chord, the attention of the ear is not specially attracted to it, because its musical character and effect is merged in the effect of the whole combination. As it is important that that special aspect of its character upon which its technical name and classification is based should be presented before any other aspect, it should in the first instance be shown as the *inversion* of the perfect fifth—that is, as joining with the perfect fifth to make the perfect octave.

[By the *inversion of an interval* is meant that interval which is formed when the relative position of the two notes forming the interval is changed, either by the lower one being transposed above the higher, or the higher one below the lower.]

It is therefore better to present the perfect fourth harmonically, first as formed between the Dominant and higher Tonic—as shown in

Ex. 17 (*a*)—rather than where it is so often presented as formed between the Tonic and Subdominant, and falling to the third, as in (*b*).

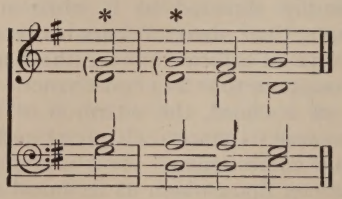
Ex. 17.



Whenever it is presented as in (*b*)—and after the third and fifth have been presented from the same lower note—it is extremely difficult for the pupil to recognise that it possesses that self-dependent character which it should possess in order to justify its technical description, especially when, as is so often the case, the pupil's attention is directed to its tendency to fall to the third, its dissonant tendency being thereby thrown into prominence while, at the same time, it is described as a perfect consonance. By presenting it first as formed between the Dominant and higher Tonic, we show it at the outset as the inversion of the perfect fifth—in which position only is it really a consonant interval—and we also show at a glance the relationship of all three perfect intervals to one another. After it has been presented in this position, it should also be formed between the Tonic and Subdominant, when its tendency to fall to the third supplies the key to its dissonant character.

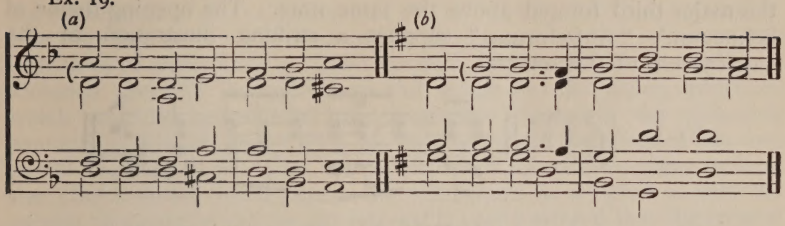
23. **Illustrations of the Perfect Fourth.**—Illustrations of the perfect fourth in two parts are very rare in music which would be sufficiently familiar to possess value for such purposes. In the absence of such two-part illustrations, its employment in both its consonant and dissonant character is shown in the upper parts of the first two chords of the familiar hymn tune known as "Tallis' Canon," Ex. 18. In the second chord, the introduction of the A—the fifth of the chord of D—immediately changes the G—the fourth above D—into a dissonance, which resolves upon F♯, the third of the chord.

Ex. 18.



When any difficulty arises in correctly discriminating the sound of the perfect fourth from that of other intervals, it will generally be found that it is confused with the perfect fifth, the characteristic quality of both intervals being their "bareness." It may be found helpful if the pupil can definitely associate each of these intervals with the opening of some simple and familiar composition, of which both the look and the sound can be readily and vividly recalled to mind for reference and comparison.

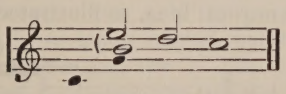
Ex. 19.



[ILLUSTRATIONS.—The first chords of Chopin's familiar Nocturnes in F minor and G minor, and of his Mazurka in F ♯ minor (Op. 6, No. 1), may also be employed to illustrate these two intervals (in compound form), respectively].

The musical character of the perfect fourth (like that of its inversion the perfect fifth), apart from its consonant and dissonant aspects, is not very susceptible to those influences which arise from the tendencies of the individual notes forming the interval, and which, as we have shown in a previous paragraph, unmistakably colour the character of some intervals; but that such tendencies do make themselves felt may be heard in the following, in which the perfect fourth—although employed as a consonance—exhibits a tendency to proceed to another interval, owing to its formation between special degrees of the scale.

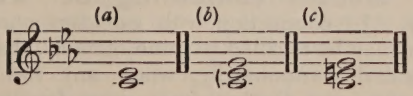
Ex. 20.



Ear Exercises.—The teacher should exercise the pupil in recognizing, by their sound, any of the intervals which have now been studied, by playing them formed above and below various notes in the middle portion of the keyboard—fourths and fifths being frequently contrasted.

24. **The Minor Third.**—The next interval to be introduced is the minor third. The minor third is formed between the first and third degrees of the minor scale, as shown in Ex. 21 (*a*). It is the lower and characteristic interval of the minor triad, as shown in (*b*); and in this position it distinguishes the minor triad from the major triad, which has a major third for its lower and characteristic interval—as shown in (*c*). These two thirds, sounded in isolation, generally suggest to the mind, respectively, these two triads: the major third suggesting the major triad, and the minor third the minor triad; the other interval of the triads, the perfect fifth, being common to both triads.

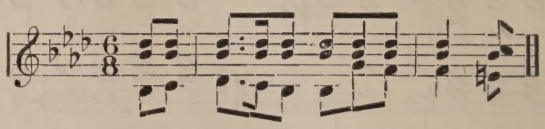
Ex. 21.



The minor third, upon its first presentation, should be formed above middle C, and immediately thrown into direct and vivid contrast with

the major third formed above the same note. The opening theme of Schumann's "Aufschwung" supplies a striking illustration of the employment of this interval.

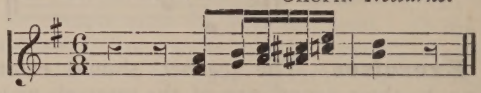
Ex. 22.



25. **Progressions of Thirds.**—The intervals of the major third and the minor third, differ fundamentally from the perfect fifth and perfect fourth, in the fact, that progressions in two parts, formed of consecutive thirds, either all major or all minor, or both major and minor mixed, are of frequent occurrence in music and they are often employed with the most beautiful effect. Sometimes such progressions are scale-wise, either diatonic or chromatic, and sometimes they are disjunct, when the progression frequently proceeds by the interval of a third. Although, when presented in an isolated manner, the different qualities of the two thirds (major and minor) are, by most listeners, discriminated without much difficulty, yet when thirds of different qualities are employed in some natural musical progression, as in diatonic scales played in thirds, or when they enter in an essential manner into the formation of some musical idea, as illustrated in Ex. 23,

CHOPIN *Nocturne.*

Ex. 23.

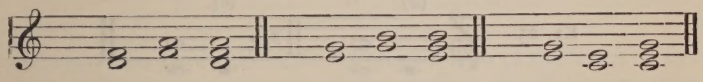


their individual characters are so merged into the general musical effect of the progression or the idea, that the task of readily discriminating them is a distinctly more difficult one. The recognition of a succession of minor thirds employed to form the diminished seventh, presents but little difficulty to those familiar with the sound of this chord, while the recognition of a succession of major thirds, at the distance of a major third, because such a progression is both striking and unfamiliar, is not a very difficult task. To decide whether a rapidly-played chromatic scale is in minor thirds or major thirds is a more severe ear-exercise, because the predominating feature of such a scale is the chromatic progression itself, and this, to some extent, forcibly monopolizes the attention and thereby interferes with the full exercise of the discriminative power in connection with the intervals formed between the notes.

26. **The mental coalescing of Thirds sounded adjacently.**—In connection with exercises upon thirds, what was said in par. 11 may be recalled to mind, namely, that in the dictation of intervals sounded harmonically, when any two intervals sounded immediately after one another form some familiar chord, there is a tendency for such intervals to mentally coalesce and to create in the mind the effect of this chord, the presence of which may interfere with

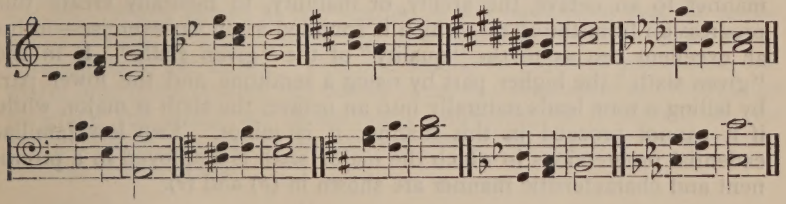
the perception of the real character of the *second* interval so presented. The fact that both major and minor thirds enter so largely into the formation of every kind of chord, renders exercises in which thirds are included specially susceptible to the subtle but disturbing influences which arise as a result of this tendency. Thus, in the following example, if the second interval be sounded while the effect of the first is still lingering in the mind, the two intervals mentally combine to form the chord shown immediately afterwards, and as a result of this the special character of the second interval is partly merged into the general harmonic effect of the chord thus formed, and the ear may find some difficulty in isolating its musical effect and scrutinizing its musical character apart from the effect of this resulting chord.

Ex. 24.



27. **Ear Exercises.**—The teacher should exercise the pupil in discriminating between major and minor thirds when these are formed *above* notes other than C. At first, only the nature of the interval should be described, afterwards the lower note should be given and the pupil should name the higher one. These intervals may then be formed *below* C, and also below other notes, and the pupil exercised in their discrimination, the upper note being named by the teacher and the lower one by the pupil. After this, any of the intervals which have been studied may be formed between notes arbitrarily selected from the chromatic scale, and the pupil exercised in naming them from their sound.

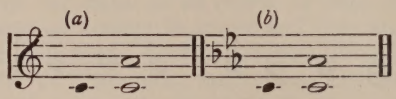
Dictation Exercises.—Short progressions formed of the various Intervals which have been studied.—The key of any exercise should be established and a suitable keynote sounded before the exercise is played over.



28. **The Sixth—Major and Minor.**—Of the consonant intervals, there now remain but two which have not yet been considered, the major sixth and the minor sixth. It seems to be the general experience of teachers of ear-training that students find greater difficulty in correctly discriminating the "quality" of these two intervals when either is sounded, than determining that of any other interval. This special difficulty is probably due to the fact that while both major and

minor sixths are consonant intervals, the interval of the sixth is large enough to prevent an alteration in its size, to the extent of a semitone (*i.e.*, changing it from major to minor, or minor to major), from making any very striking difference in the musical character of the interval. The difficulty which so many find in readily and correctly discriminating between major and minor sixths, gives an additional value to any indirect help which may be obtained by means of illustration or association. The interval of the major sixth is, in the first instance, frequently presented as formed between the keynote and the sixth degree of the major scale, and that of the minor sixth as formed between the keynote and sixth degree of the harmonic minor scale, as shown below.

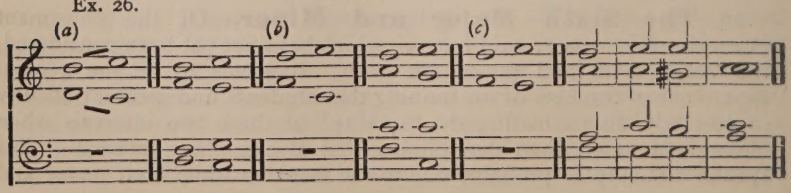
Ex. 25.



When these intervals are presented in this relation, the upper note of each exhibits a tendency to fall to the fifth of the scale, for reasons which were explained in par. 15. It is, however, a mistake (and one not infrequently made) to regard the special character which these intervals possess *when heard in this relation*, as indicating *the general character of the interval.* When the sixth is sounded "in isolation," and apart from any definitely established key, it will almost invariably be perceived by the mind as forming a characteristic part of the most familiar and readily recalled progression in which it occurs, and this will probably differ very considerably with different listeners.

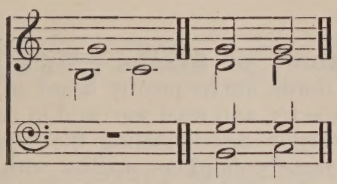
29. **Methods of comparing the Major Sixth and the Minor Sixth.**—One of the most familiar progressions in which the *major sixth* (formed between the outside parts) is employed, is in the formation of what is perhaps the oldest form of the Authentic Cadence, as shown in Ex. 26 (*a*). As only the *major* sixth can proceed in this manner to an octave, the ability, or inability, to mentally create this progression from the sixth—which is sounded as an ear-exercise—forms an excellent test as to the "quality" of the "given sixth." If in the "given sixth" the higher part by rising a semitone and the lower part by falling a tone leads naturally into an octave, the sixth is major, while if it cannot proceed in this manner it is minor. Two less familiar cadential progressions in which the major sixth is employed in a prominent and characteristic manner are shown in (*b*) and (*c*).

Ex. 26.



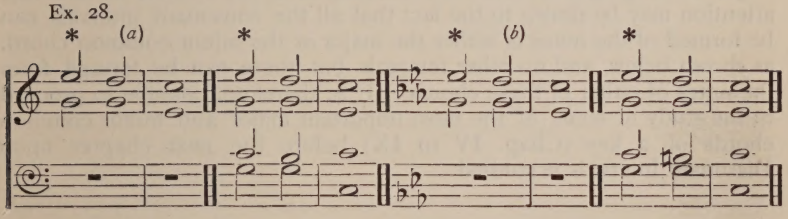
A familiar cadential progression in which the *minor sixth* is employed between the outside parts is shown in Ex. 27, and a somewhat similar method of procedure to that suggested above may be employed to test the quality of a "given sixth," by imagining it to be formed as a sixth above a leading note. If by mentally resolving the lower note a semitone upwards a perfect fifth is formed, the given sixth is minor

Ex. 27.



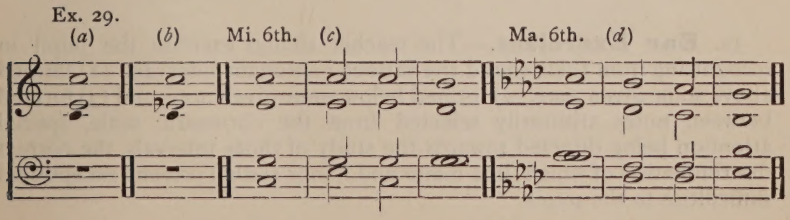
Both the major and the minor sixth are thrown into prominence in the very familiar cadential employment of the six-four chord leading to a perfect cadence, as shown in Ex. 28. In these progressions, the sixth, which is formed between the Dominant and the Mediant above, is major in the major key as in (*a*), and minor in the minor key as in (*b*).

Ex. 28.



Another method of comparing the qualities of the two sixths is by imagining them as formed between the third and upper root of either a major or a minor common chord with the fifth omitted, as shown in Ex. 29. When shown in this relation, it will be noticed that the major chord (*a*) has a minor sixth, and the minor chord (*b*) a major sixth between these two notes. This and similar methods of association are useful only if the student can readily recall in a vivid manner illustrations in which the sixths are prominently employed, as illustrated in the first chords of (*c*) and (*d*) respectively, which are the first parts of two familiar single chants.

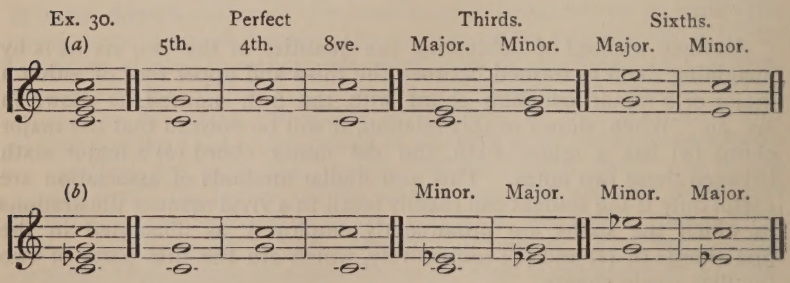
Ex. 29.



A study of the various illustrations of major and minor sixths given above, in which the major and minor sixths are formed in different parts of the scale, will show that the musical character of the sixth varies very much according to the particular notes of the scale between which it is formed, and the way in which these enter in some characteristic manner into the formation of familiar chords and progressions.

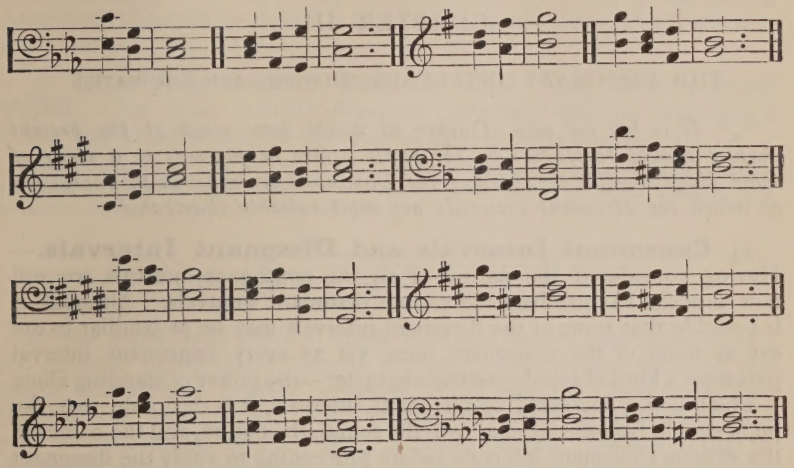
30. **Progressions of Sixths.**—Major and minor sixths, like major and minor thirds, are frequently heard in progressions generally of a scalewise character, and what was said in par. 25 with reference to the difficulty of readily discriminating the "quality" of thirds when presented under these conditions, applies with even greater force to similar progressions of sixths. The general musical character of the progression attracts and engrosses the listening powers to such an extent that it is very difficult to concentrate the attention upon the quality of individual intervals, when these are played at a quick speed.

31. In bringing to an end our consideration of the consonant intervals, attention may be drawn to the fact that all the consonant intervals can be formed of the notes of either the major or the minor common chord, as shown below, and no other intervals but these can be formed from the notes of either of these chords. It is, therefore, possible to proceed to the study of some of the most important major and minor common chords of a key (Chap. IV to IX) before the next chapter upon Dissonant intervals is studied.



32. **Ear Exercises.**—The teacher should exercise the pupil in recognising from their sound the various consonant intervals: (1) formed above some given note, (2) formed below some given note, and (3) formed between notes arbitrarily selected from the chromatic scale, special attention being directed towards the study of those intervals, the correct discrimination of which (like major and minor sixths) present exceptional difficulties to the pupil.

Dictation Exercises.—Short progressions formed of Consonant Intervals :—



CHAPTER III.

THE DISSONANT INTERVALS (DIATONIC AND CHROMATIC).

*** *It is left for each Teacher to decide how much of the present chapter should be studied by the pupil before he proceeds to a study of those discords—like the chord of the Dominant seventh—in the formation of which the dissonant intervals are most suitably illustrated.*

33. **Consonant Intervals and Dissonant Intervals.**—Having considered the nature of all the consonant intervals, we will now proceed to introduce the various dissonant intervals. Although it is possible that some of the dissonant intervals may be as familiar to the ear as some of the consonant ones, yet as every consonant interval possesses a kind of self-dependent character—the power of standing alone—which is not possessed by dissonant intervals, it is desirable that the pupil should become familiar with the sound, the nature, and the names of the various consonant intervals before proceeding to study the dissonant ones. The essential difference in the musical character of consonant and dissonant intervals is, that while consonant intervals create in the mind an effect of musical rest or satisfaction (more or less complete and varying according to the nature of the interval), the dissonant intervals create an effect of musical unrest, and the sounding of a dissonant interval leaves the ear musically unsatisfied until either or both of the notes forming the interval proceed in some suitable manner to that consonant interval for which the dissonance has created the desire. The progression of a dissonant interval to a consonant one is called "the resolution of the dissonance."

34. **Diatonic Intervals and Chromatic Intervals.**—The large majority of the dissonant intervals (as well as *all* the consonant intervals) can be formed between notes belonging to one of the diatonic scales, and all intervals which can be so formed are called *diatonic intervals*. The diatonic dissonant intervals will be presented before those less familiar dissonant intervals which can be formed only by the employment of notes belonging to the chromatic scale and which are called *chromatic intervals*.

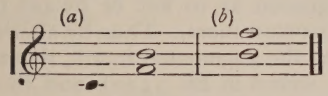
35. **Diatonic Dissonant Intervals—Method of Presentation.**—In presenting the *diatonic dissonant intervals*, these will not generally be formed above (or below) some given keynote as was the case with the consonant intervals, because with the exception of the major second and major seventh above, and the minor second and minor seventh below, the formation of them in this manner would involve the employment of notes foreign to the key, notes which would either be in the nature of chromatic notes, or which would induce a modulation to another key. These dissonant intervals will first of all be presented as

formed of notes belonging to either the major or to the harmonic minor scale of C, and in their most familiar position (or positions) in the scale, and associated with their most familiar form (or forms) of resolution. Afterwards they will be shown in less familiar positions and with suitable resolutions.

36. **The Augmented Fourth and the Diminished Fifth.**—The most familiar dissonant intervals are the augmented fourth and its inversion, the diminished fifth, as shown in Ex. 31.

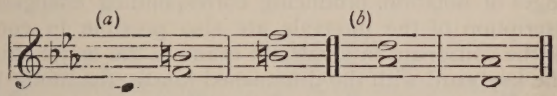
[*Perfect intervals* and *major intervals* when increased by a semitone become *augmented intervals*, while *perfect intervals* and *minor intervals* when reduced by a semitone become *diminished intervals*.]

Ex. 31.



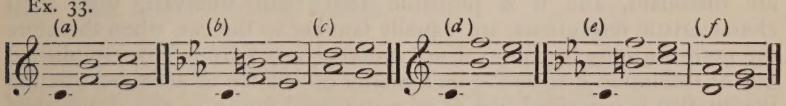
In the *major scale* each of these intervals occurs only once, and in the position shown above, namely, the augmented fourth between the fourth and seventh degrees as shown in (*a*), and the diminished fifth between the seventh and fourth degrees as in (*b*). In the *minor scale* each interval occurs twice, once in a corresponding position to that in the major scale as shown in Ex. 32 (*a*), which is the most familiar position, and also between the sixth and second degrees, and second and sixth degrees as shown in (*b*).

Ex. 32.



There are but two familiar resolutions to each of these two intervals, although when they are joined with other notes to form chords, other resolutions are not uncommon. The augmented fourth generally resolves by its two notes moving outwards in contrary motion to either a minor sixth as shown in Ex. 33 (*a*) and (*c*), or to a major sixth as shown in (*b*), while the notes of the diminished fifth resolve in a corresponding manner by moving inwards to a major third as shown in (*d*) and (*f*), or to a minor third as shown in (*e*). The diminished fifth being the inversion of the augmented fourth the intervals upon which it resolves are inversions, respectively, of the intervals upon which the augmented fourth resolves, as will be seen by a comparison of the second chord of (*a*) and (*d*), (*b*) and (*e*), and (*c*) and (*f*).

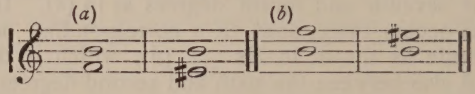
Ex. 33.



Although the progressions (*c*) and (*f*) are found in the key of C minor, yet they are also found in the key of E♭, and heard as above, unless the key of C minor be previously established, they suggest the key of E♭ rather than that of C minor.

37. In considering the nature and description of the above intervals it is necessary to direct the attention of the pupil to an important fact affecting the nomenclature of intervals generally, but to which reference has not yet been made—that is, to the manner in which the nature, quality and theoretical description of an interval is determined by the key in which it is presented, or in other words, by the alphabetical names of the notes between which it is formed. An examination of the augmented fourth and the diminished fifth will reveal the fact, that measured by the number of semitones each contain, they are exactly the same in size, and therefore when sounded "in isolation" upon a keyboard instrument (such as the piano or the organ), and unaccompanied by any suggestion as to key or by any resolution, there is no musical difference between them. Thus by altering the notation of one of the notes forming the augmented fourth, this may be changed into a diminished fifth as shown in Ex. 34 (*a*), and in a similar manner the diminished fifth may be changed into an augmented fourth as shown in (*b*). In neither case does any alteration of the notes themselves take place so far as these are represented upon a keyboard instrument.

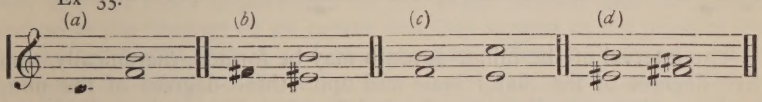
Ex. 34.



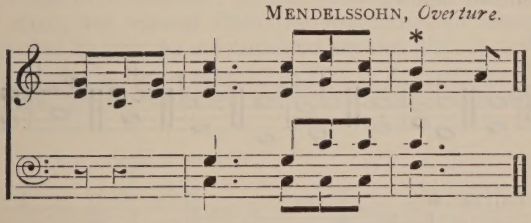
Changes of notation, producing corresponding changes in the nature and description of the intervals, are also possible in connection with some of the consonant intervals, for example, the major third is identical upon the keyboard with the diminished fourth, the minor third with the augmented second, the minor sixth with the augmented fifth, and the major sixth with the diminished seventh (see par. 43), but these latter intervals, the diminished fourth, the augmented second, the augmented fifth and the diminished seventh, with their characteristic resolutions, are, however, far less familiar to the ear than the former intervals (the major and the minor thirds and the major and the minor sixths), and, moreover, in one character they are consonant and in the other dissonant intervals, therefore when the notes forming these intervals are sounded "in isolation" their unrestful and dissonant character with its corresponding name is less likely to suggest itself to the mind as a correct interpretation of them than their restful and consonant character with its corresponding name. With regard to the augmented fourth and the diminished fifth the conditions are different. Both of these intervals are dissonant, and it is probable that both intervals, with their characteristic resolutions, are equally familiar to the ear, when therefore the notes forming the interval are sounded apart from any established key or resolution it seems to be a matter of chance or accident whether the interval is perceived first as an augmented fourth or as a diminished fifth, either description being equally correct. Directly, however, the interval is shown in some definite relationship, either by the establishment of a key to which the notes forming the interval belong, or by the resolution of the interval in some regular manner, then the notation and

with it the exact nature of the interval is revealed, and there is no longer any doubt as to its correct theoretical description. Thus, if previous to the sounding of the interval shown in Ex. 35 (*a*) the key of C is in some way established, the listener will instantly recognize the two notes sounded as the fourth and seventh degrees of this scale, and describe the interval so formed as an augmented fourth, while if the key of F♯ be established, he would recognize them as the seventh and fourth degrees of this scale as shown in (*b*), and would describe the interval as a diminished fifth. On the other hand, if instead of establishing a key, the interval be resolved in some familiar manner as shown in (*c*) and (*d*) the listener would be able to determine the nature and description of the interval from its resolution.

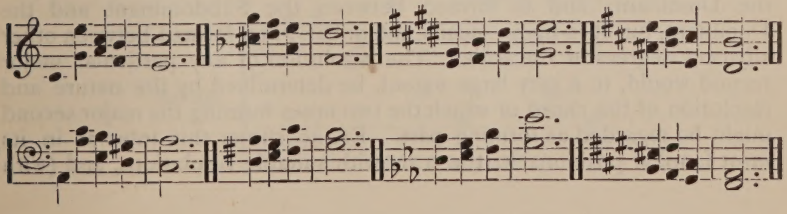
Ex 35.



After the pupil has become familiar with the sound of these two intervals when associated with their usual forms of resolution, they may be presented to him in connection with resolutions which are less familiar, as for instance when the augmented fourth is treated as an unessential discord, or auxiliary note, and resolves by falling to the third as shown in Ex. 36.

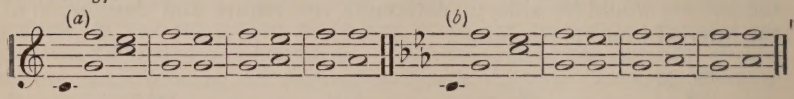
Ex. 36.

Ear Exercises.—The teacher should exercise the pupil in recognizing the various intervals, up to and including the augmented fourth and the diminished fifth, formed in the three ways described in par. 32.

Dictation Exercises upon the Augmented Fourth and the Diminished Fifth.—



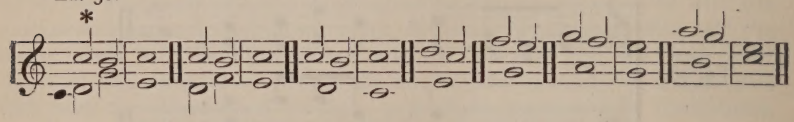
38. **The Minor Seventh.**—Next to the augmented fourth and the diminished fifth, the most familiar dissonant interval is probably the minor seventh, which is so frequently formed upon the Dominant of a key as the essential and characteristic interval of the chord of the Dominant seventh. This being its most familiar position in a key, it should in the first instance be presented in this position, that is, as formed between the Dominant and the Subdominant above, of either the major or the minor key, and associated with its most familiar resolutions in this position, as shown below.

Ex. 37.

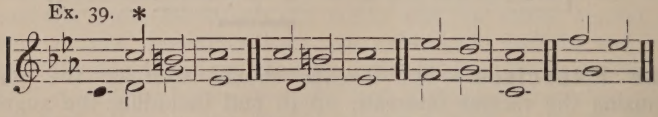


The interval of the minor seventh may be formed, diatonically, upon five degrees of the major scale and upon three degrees of the minor scale, as shown in Ex. 38 and 39, although its musical character and treatment, when formed upon degrees other than Dominant, does not necessarily resemble that of the seventh on the Dominant. The minor seventh upon the Supertonic most nearly resembles in treatment that upon the Dominant when it is resolved as in the first progression of the following examples. The minor sevenths formed above the other degrees of the scale generally have the character of accented auxiliary notes, as shown below.

Ex. 38.



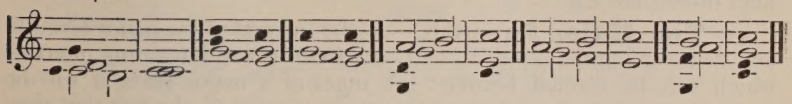
Ex. 39.



39. **The Major Second.**—The major second being the inversion of the minor seventh may be suitably introduced immediately after that interval. One of the most familiar positions in which the major second is heard, is when it occurs as the inversion of the minor seventh upon the Dominant, and is formed between the Subdominant and the Dominant, but it is by no means unfamiliar when formed between other adjacent degrees of the scale. The resolution of any particular major second would, to a very large extent, be determined by the nature and resolution of the chord of which the two notes forming the major second might be regarded as forming part. Ex. 40 shows this interval in its most familiar positions in the scale with suitable resolutions, and (with

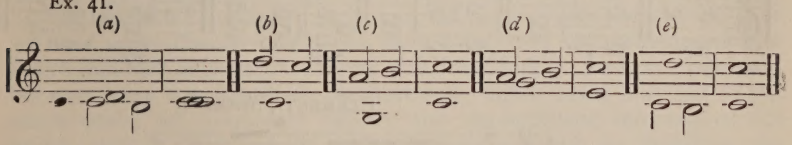
the black notes) also indicates the chords of which these seconds might conveniently form part.

Ex. 40.



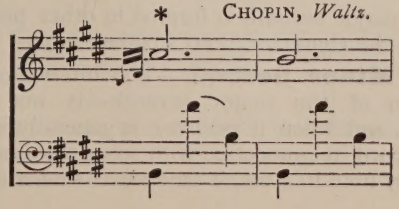
40. **The Major Ninth.**—Closely related to the major second is the interval of the major ninth, which is formed between notes an octave and a major second apart. The major ninth and the minor ninth (see par. 46) are the only intervals, larger than an octave, which may be said to possess an individual character of their own, that is, they are not mere duplications of the major second and the minor second at the distance of an octave, but they suggest to the mind of the musician different chords, and which require different treatment. The harmonic treatment of the major second and the major ninth differ in the fact that the second generally resolves by the *lower* note falling a second, and thus forming with the upper note a third, as shown in Ex. 41 (*a*), while the ninth generally resolves by the *upper* note falling a second and thus forming with the lower note an octave, as shown in (*b*). Occasionally the ninth rises to the tenth as in (*c*), and upon those rare occasions when a second rises in a similar manner to the third as in (*d*), it is generally regarded in Harmony as possessing the character of a ninth and not that of a second. In (*e*), although the two notes are a major ninth apart, yet viewed from the standpoint of Harmony they would be regarded as forming a compound second (that is, a second and an octave), because the lower note by falling to its resolution shows that it is a duplication of (*a*) with the notes extended an octave apart.

Ex. 41.



One of the most familiar positions in the major key in which the major ninth is heard is above the Dominant, when it forms the characteristic interval of the chord of the Dominant ninth, as shown in Ex. 42. When it is formed above other notes it generally has the character either of an auxiliary note or suspension.

Ex. 42.

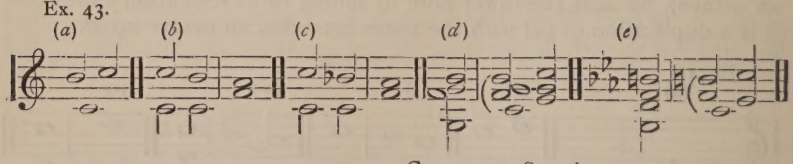


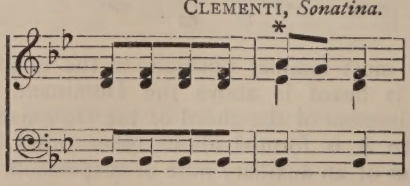
Ear Exercises.—The teacher should exercise the pupil in recognizing from their sound the different intervals which have now been introduced and studied, forming them in various ways and in keys other than C.

41. **The Major Seventh.**—As the interval of the major seventh, and its inversion the minor second, are the only two remaining intervals which can be formed between the notes of a major scale, it will be convenient to introduce them at this stage, in spite of the fact that they are not so frequently employed and, therefore, not so familiar to the ear as, for instance, the diminished seventh, and its inversion, the augmented second, which belong specially to the minor key and scale, and are considered later. The sharp dissonance of the major seventh differentiates it in no uncertain manner from the softer and more pleasing dissonance of the minor seventh, as will be immediately recognized if both intervals are formed and sounded above the same note as shown in Ex. 43 (*a*), (*b*) and (*c*). The most familiar position of the major seventh is when it is formed between the keynote and the seventh degree (or leading-note) of either the major or the minor scale, and in this position it is generally resolved by the upper note—the major seventh—rising to the octave. The major seventh resolved in this manner is frequently found in perfect cadences when the Dominant chord is suspended over the Tonic, before proceeding to the Tonic triad, as shown in (*d*) and (*e*).

A less frequent form of resolution, found only in the major key, is for the major seventh to descend a second after the manner of the minor seventh as shown in (*b*), or as an accented auxiliary note as in Ex. 44 :—

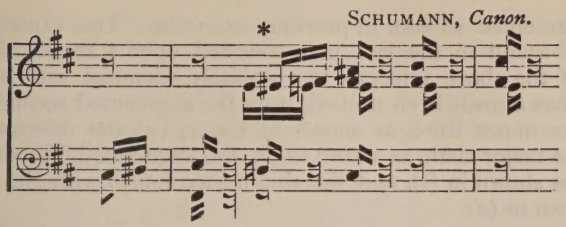
Ex. 43.



Ex. 44.

When the major seventh is formed in other positions of the scale, it generally has the character of an auxiliary note.

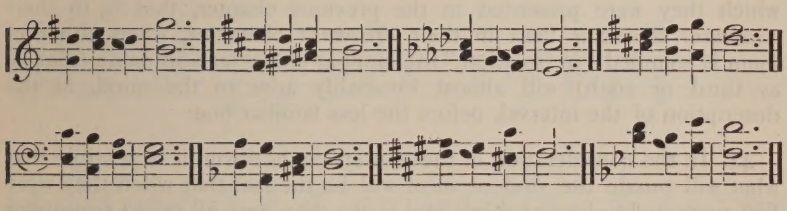
42. **The Minor Second.**—The interval of the minor second—the inversion of the major seventh—is not frequently employed harmonically, and when it occurs it is generally in the nature of either a passing discord in connection with some sustained or repeated note or as an auxiliary note to a major second, as shown in Ex. 45.

Ex. 45.



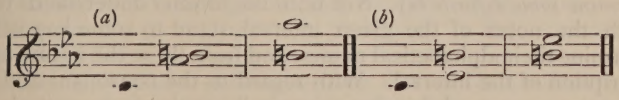
Ear Exercises.—The teacher should exercise the pupil in recognizing from their sound the different intervals which have now been introduced and studied, forming them in various ways.

Dictation Exercises upon Major and Minor Sevenths and Major and Minor Seconds:—



43. **The Characteristic Intervals of the Minor Key.**—We have now considered the nature of all the intervals—up to the compass of an octave—which can be formed between any two notes of the major scale, and also these same intervals when formed between notes of the minor scale. There still, however, remain four dissonant intervals (two intervals with their inversions) which can be formed only between notes of the minor scale, and the nature and character of these we have yet to discuss before we have completed our consideration of the "diatonic intervals." These four remaining diatonic intervals, because they are found in the harmonic minor scale and not in the major scale, are frequently called "the characteristic intervals of the minor scale." They are the augmented second with its inversion, the diminished seventh, found between the sixth and seventh, and seventh and sixth degrees, respectively, as shown in Ex. 46 (*a*), and the augmented fifth with its inversion, the diminished fourth, found between the third and seventh, and seventh and third degrees, respectively, as shown in (*b*).

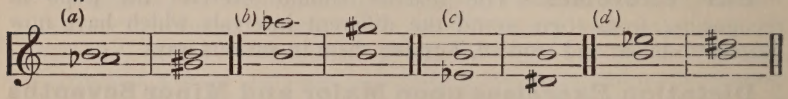
Ex. 46.



If either of these intervals be sounded "in isolation," that is, quite apart from any suggested key or any form of resolution, the student will doubtless realise that intervals identical in sound with these have already

been presented to him in previous exercises. The explanation of this will be found in the fact that, sounded upon a keyboard instrument, each of the above intervals is absolutely identical with some interval which has already been studied, thus, the augmented second corresponds with the minor third, as shown in Ex. 47 (*a*), the diminished seventh with the major sixth, as shown in (*b*), the augmented fifth with the minor sixth, as shown in (*c*), and the diminished fourth with the major third, as shown in (*d*).

Ex. 47.

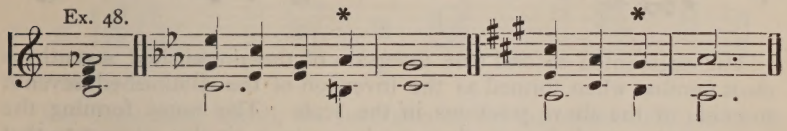


As all these intervals are more familiar to the ear in the character in which they were presented in the previous chapter, that is, in their *consonant* character than in their *dissonant* character, when either of them is sounded "in isolation," the familiar character and name (that is, as third or sixth) will almost invariably arise in the mind, as the description of the interval, before the less familiar one.

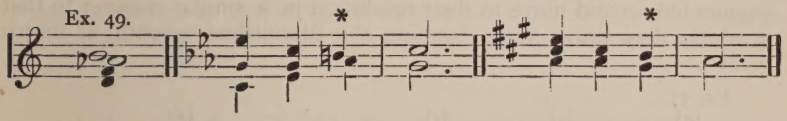
44. In the consideration of these intervals, however, it is possible that what will puzzle the student most will be the fact that when they were first presented to him as thirds and sixths they were all called consonant intervals, whereas the same combinations of keyboard sounds are now called dissonant intervals. In order, therefore, to clear away an apparent inconsistency in the employment of these two opposite descriptions for identical combinations of keyboard sounds, when introducing these intervals to the pupil in their new character in the minor key, we must at the very outset direct his attention to the fact that *their possession of this special dissonant character, so far as it can be illustrated upon a keyboard instrument, entirely depends upon their tonal surroundings*, or, in other words, upon their presentation in a key, and in such relation in that key as will reveal in them the special character of unrest which is the distinguishing mark of a dissonant interval. Theoretically speaking, the notation of an interval determines the nature and description of an interval, and as in all musical dictation exercises the notation has to be decided by the pupil from what is presented to him in sound, in order that he shall have sufficient data for this purpose, *all the above intervals must be presented either in connection with some previously established key or else resolved in a manner which suggests, if it does not absolutely determine some definite key.* Not until the listener understands the relation which the notes of the given interval stand to some key is he able to determine their alphabetical names, and from these the nature and correct description of the interval. With regard to the consonant and dissonant characters possessed by these intervals, their appearance in different positions of the scale and with different kinds of treatment in different and unrelated keys, seems in some subtle and indefinable manner to endow them with different musical characters, even when they are heard

upon a keyboard instrument, and the two notes forming the interval are absolutely identical. The following progressions, in which both characters of the above-mentioned intervals are shown in familiar positions and in suitable keys, will illustrate this, if before presenting the particular interval under consideration the key of the example be definitely established.

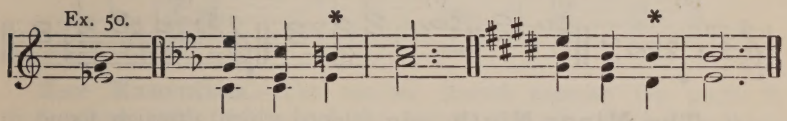
Ex. 48.



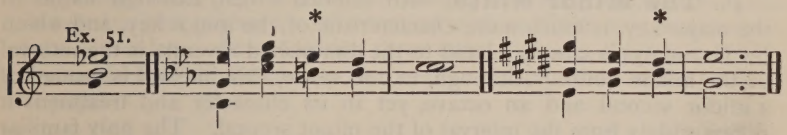
Ex. 49.



Ex. 50.



Ex. 51.

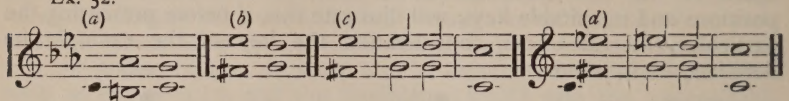


The mental association of an interval with other notes which may be joined with it to form a distinctive kind of discord, and of which it is the characteristic interval (as shown by the complete chords at the beginning of each of the above), coupled with the special progression of the notes forming the interval, directly suggesting a particular manner of writing them, also possibly aided by the mental picture of the notation which the visual memory—excited by the musical memory—brings before the mind, all seem to combine in some subtle manner to differentiate the two musical characters possessed by each of these identical combinations and to impart to these same keyboard sounds, when heard in different relations and treated differently, very different musical effects.

45. **The Diminished Seventh and the Augmented Second.**—The interval of the diminished seventh besides being formed diatonically between the leading note and the minor sixth of the minor scale, as shown in Ex. 52 (*a*), in which position it is the characteristic interval of the "chord of the diminished seventh" formed upon the leading note, is by no means unfamiliar when formed chromatically upon the sharpened fourth degree of both major and minor keys, as shown in (*b*) to (*d*), in which position it forms part of the chromatic chord of the minor ninth upon the Supertonic. One of the most familiar resolutions of this interval is for each of the two notes forming the interval to move

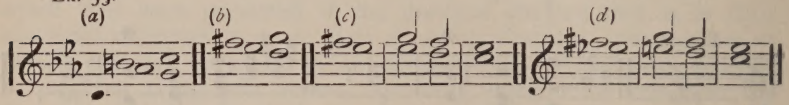
a semitone inwards to a perfect fifth, as shown in (*a*) and (*b*), but the resolutions shown in (*c*) and (*d*) are also familiar ones.

Ex. 52.



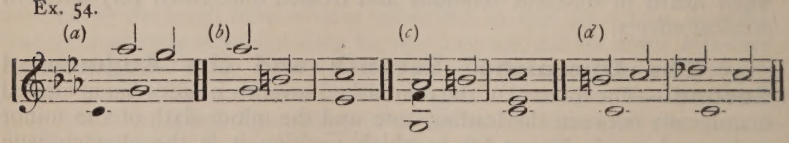
The augmented second (the inversion of the diminished seventh) is most familiar when formed as the inversion of the diminished seventh in either of the above positions in the scale. The notes forming the augmented second move to their resolution in a similar manner to that in which they move when forming the diminished seventh, as shown below :—

Ex. 53.



46. **The Minor Ninth.**—An interval which, although found in the major key, is much more characteristic of the minor key, and which (in Harmony) is closely related to the diminished seventh, is the interval of the minor ninth. Although, in one sense, this interval is formed of a minor second and an octave, yet in its character and treatment it differs widely from the interval of the minor second. The only familiar position in which the minor ninth occurs is, when it is formed above the Dominant of the minor key, and it generally resolves by the upper note falling to the octave, as shown in Ex. 54 (*a*). When this interval forms part of a chord of the Dominant minor ninth it occasionally resolves in the ways shown in (*b*) and (*c*). The harsh dissonance of this interval somewhat resembles that of the major seventh, the minor ninth being a semitone greater, and the major seventh a semitone smaller than an octave, to which interval both of them naturally proceed, as shown in (*d*). The minor ninth should therefore be carefully contrasted in sound with the major seventh as well as with the major ninth.

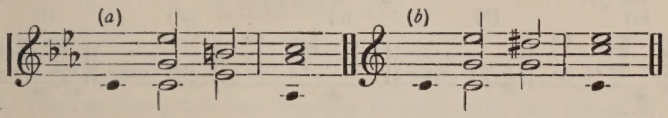
Ex. 54.



47. **The Augmented Fifth and the Diminished Fourth.**—The interval of the augmented fifth, in addition to its position when formed diatonically between the mediant and the leading note of the minor scale, as shown in Ex. 55 (*a*), (in which position it is the characteristic interval of the augmented triad formed upon the mediant of the minor key), is also employed chromatically in the

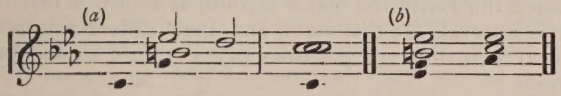
formation of an augmented triad upon the Dominant in the major key, as shown in (*b*). In both of these positions this interval is almost invariably resolved by the upper note rising a semitone and the lower note leaping either a perfect fourth upwards or a perfect fifth downwards as shown :—

Ex. 55.



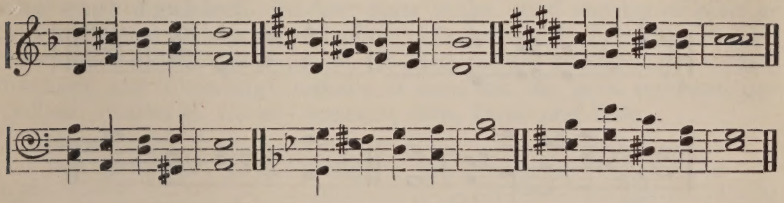
The diminished fourth, the inversion of the augmented fifth, is rarely employed except as formed above the leading note of the minor key, in which position it generally resolves in one of the two ways illustrated below :—

Ex. 56.



Ear Exercises.—The teacher should exercise the pupil in recognizing from their sound the various intervals which have been presented to him, paying special attention to those which are characteristic of the minor key. In presenting these latter intervals, the key in which they are formed should always be previously established in the mind of the pupil.

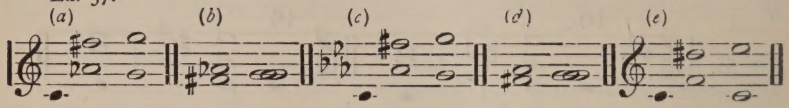
Dictation Exercises upon the characteristic Intervals of the Minor Key:—



48. **Chromatic Intervals—The Augmented Sixth and the Diminished Third.**—The only intervals of any importance, harmonically, which cannot be formed between notes of either the major or the minor scales, but only by the employment of notes belonging to the chromatic scale, and are therefore called *chromatic intervals*, are the augmented sixth and its inversion the diminished third. Of these two intervals, the augmented sixth is by far the more frequently employed. Its most familiar position is when it is formed above the minor sixth of either the major or the minor key, as shown in Ex. 57 (*a*) and (*c*), in which position it forms the characteristic interval of the chord of the augmented sixth upon that note. The natural resolution of this interval is for each of its notes to move a semitone

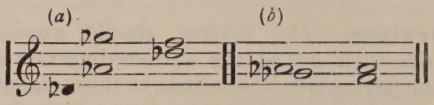
outwards to form an octave, as shown in (*a*) and (*c*). The notes of the diminished third move respectively in a corresponding manner, inwards, to a unison, as shown in (*b*) and (*d*). An augmented sixth is sometimes employed upon the Subdominant of the major key and resolved as in (*e*).

Ex. 57.



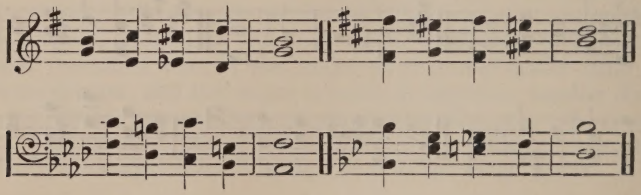
Both the augmented sixth and the diminished third, so far as they can be presented upon a keyboard instrument, have already been introduced to the pupil under other names. Thus, the augmented sixth corresponds with the minor seventh, as shown in Ex. 58 (*a*), and the diminished third with the major second, as shown in (*b*). In both forms these two intervals are dissonant, and their different musical characters are due to their different positions in a key, and to the nature of their resolutions.

Ex. 58.



Ear Exercises.—The teacher should exercise the pupil in recognizing from their sound all the different intervals, consonant and dissonant, forming them in various keys.

Dictation Exercises upon the Augmented Sixth and the Diminished Third:—



49. With the above paragraph our consideration of the formation and the musical character of the various intervals comes to an end, and although this preliminary branch of the subject has been discussed at some length, yet as a knowledge of the sound and character of the different intervals forms the only sure foundation upon which all higher and more advanced knowledge of a similar kind can be built, the length of these two chapters seems fully justified, and the mastery of them will certainly accelerate the pupil's progress through the chapters which follow.

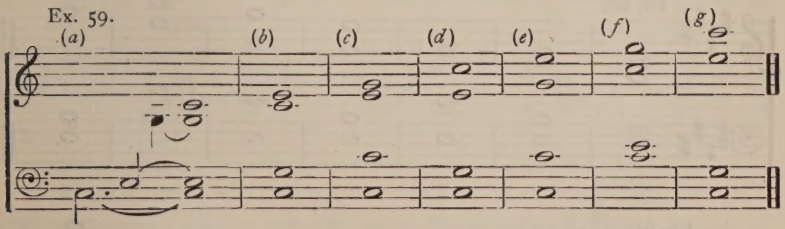
CHAPTER IV.

THE MAJOR COMMON CHORD.

50. As soon as the pupil has become familiar with the sound of all the consonant intervals (Chap. II), so that he can readily recognize them by their sound, and associate them in sound with their correct technical names and the manner of writing them in musical notation, he may at once proceed to study the musical character of the two consonant triads—the major common chord and the minor common chord—because, as was stated in par. 31, none but consonant intervals are employed in the formation of these two triads. The major common chord, being the more important and familiar triad, will be considered first. The study of the major common chord (or indeed of any chord) implies the training of the listening powers to observe the musical effect of the chord when its several notes are distributed in various ways, the musical memory to retain its sound and to associate this with its representation in musical notation, so that the chord may be readily recognized and described from its sound, and also its musical effect may be mentally re-created when its notational signs or its description is presented to the mind through the medium of some sense channel—as, for instance, the eye.

51. **Ear Exercises—the Major Common Chord with the root doubled.**—As four parts is the usual number of parts in which Harmony is studied and written, all the ear-exercises upon chords, which have been specially written for Part I of this book, are in four-part harmony, and in the large majority of exercises, the parts represent the ordinary quartet of voices—Soprano, Alto, Tenor and Bass.

Ex. 59.



In dictating Ex. 59 the pupil's attention should be specially directed to the different musical effects which are produced by the same chord according:—

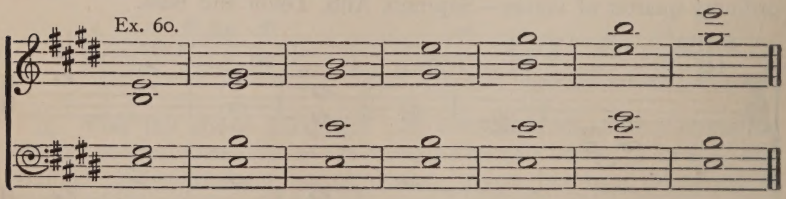
(i) As to whether *the root, the third, or the fifth is heard in the highest part*, contrasting the musical effects of (*a*), (*b*) and (*c*), or of (*d*), (*e*) and (*f*);

(ii) As to whether *the notes of the chord are situated near to one another, or are distributed some distance apart*, contrasting (*a*) with (*d*) and (*g*), and (*b*) with (*e*).

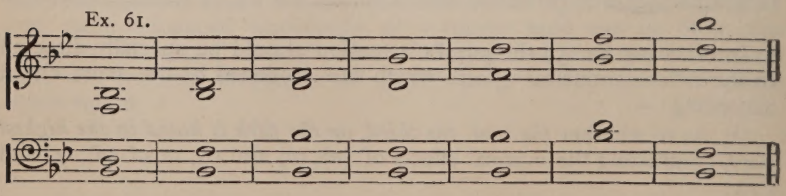
In connection with (i), when the root is in the highest part, the musical effect is one of strength and completeness. The third at the top gives an effect of richness and frequently also of brilliancy, while the placing of the fifth at the top generally detracts from the strength of the chord and also from the finality of its musical effect. [The final chords of Chopin's Nocturnes in B♭ minor, A♭, G major, and F minor, may be employed to illustrate the effect of this chord with the third at the top, while the last chord of the Nocturne in G minor, Op. 15, No. 3, has the fifth at the top.] At the outset, when presenting Ex. 59 for the first time to a pupil, it may be necessary to specially direct his attention to the individual notes which together make up the chord, by playing them consecutively, as shown in (*a*), but this method should not be employed more than is absolutely necessary in connection with these exercises, as it is the special object of such exercises to train the pupil's ear to analyse the chord and to recognize the notes of which it is formed, and also to memorize its musical effect and character, when it is presented as a definite musical combination and its several notes sounded simultaneously.

52. When the pupil can readily recognize by their sound, and can either write down or describe, any of the various distributions of the several notes of this chord, as shown in Ex. 59, the teacher may proceed to dictate Exs. 60 and 61, which are merely transpositions of Ex. 59, into the keys of E and B♭, and he may also transpose this exercise into other keys, announcing the key beforehand, and keeping the various notes of each chord similarly distributed. The pupil may sometimes simply describe a chord which is dictated, by reference to the chord, the notes of which are correspondingly distributed in Ex. 59—thus, as (*a*) or (*b*), or whichever distribution of notes is presented to him—but he should also know how to write it down correctly.

Ex. 60.



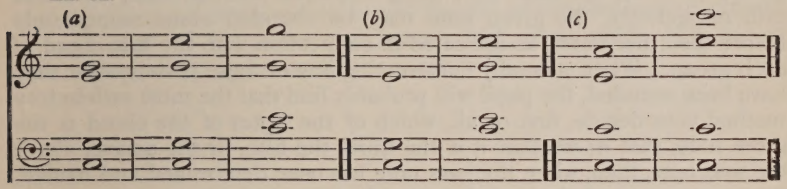
Ex. 61.



53. **The Major Common Chord with the Fifth, or with the Third, doubled.**—When the pupil has become familiar with the sound of this chord with the root doubled, it should be presented to him in other forms, thus :—

(i) *With the fifth doubled*, as in Ex. 62 (*a*).
(ii) *With the third doubled*, as in (*b*).
(iii) *With fifth omitted and the root doubled twice*, as in (*c*).

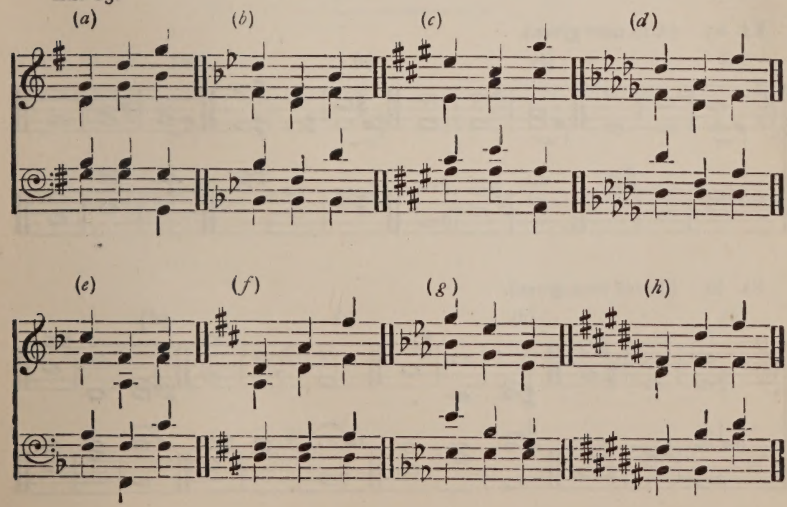
Ex. 62.



Each of these forms of the chord should be contrasted in sound with the chord in Ex. 59, having the same highest note, but in which the root is doubled, and the difference in musical effect which is produced by the doubling of different notes carefully noted. *The above exercises should be transposed and dictated in other major keys.*

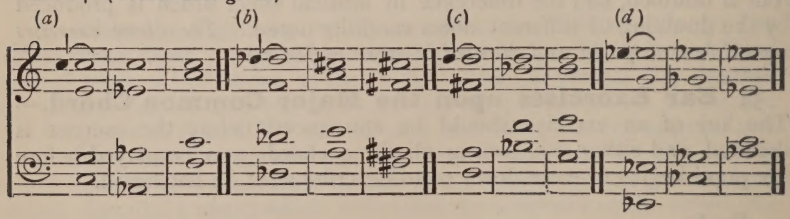
54. **Ear Exercises upon the Major Common Chord.**—The key of an exercise should be announced before the exercise is dictated, and either one, two, or all three chords may be played before the pupil begins to write down or to describe what he has heard.

Ex. 63.

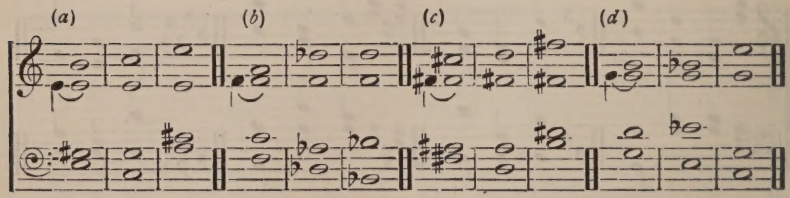


55. **Ear Exercises upon the Major Common Chord with an upper note given.**—The following exercises are in a sense *complementary* to those which have gone before, because, in them (instead of the lowest note being named and the chord constructed above this) one of the upper notes of the chord is given, and after the chord, of which this note forms part, has been sounded, the pupil is required to mentally construct, and afterwards write down, the complete chord, making his calculations as to the notes of the chord from this Treble, Alto or Tenor note. In dictating these chords, which are in groups of three, the same note being employed both as root, third and fifth respectively, the given note may be sounded alone immediately before the other notes, as indicated in connection with the first chord of each group. When mentally constructing any of these chords, after they have been sounded, the pupil will probably find that the most satisfactory method is to decide, first of all, which of the notes of the chord is the given note, that is, whether it is the third, the fifth, or the octave, above the bass note, then, when the bass note has been determined and named, the construction of the complete chord above this will not present any new difficulties. *Each chord* is to be treated as a *separate exercise.*

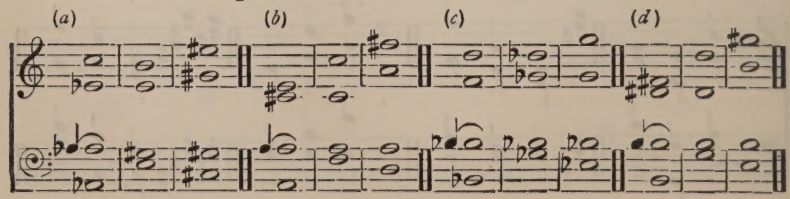
Ex. 64. (Treble note given).



Ex. 65. (Alto note given).



Ex. 66. (Tenor note given).



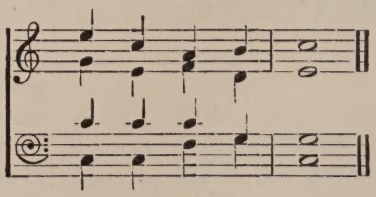
56. We do not think any explanation or apology is required for the detailed manner in which we have considered the musical effect and character of the major common chord, and the different ways in which it may be presented to the pupil. A moment's consideration will show that the difficulty of determining which note of a chord (third, fifth or root) is in the highest part, which of these is doubled, and also the relative positions of the several notes of the chord, are matters which come up for decision in every harmonic ear-exercise, and the rapidity of a pupil's progress in more advanced matters, must depend very largely upon the thoroughness with which he has mastered these first steps, although in more advanced exercises, formed of progressions of chords, a knowledge of harmonic progression will often guide the ear in determining the progression of the inner parts.

CHAPTER V.

THE TONIC AND DOMINANT TRIADS (MAJOR KEY).

57. **The character of the Tonic Triad "musically defined."**—The previous chapter was devoted to a study of the musical character and effect of the major common chord, heard practically "in isolation," that is, although for the sake of convenience it was always presented as formed upon the Tonic or keynote of some major key, yet its character as a *Tonic* chord was not "musically defined" by its being thrown into contrast with other chords in the same key. A musical illustration will show best what is meant by this. Thus if the first *three* chords in Ex. 67 be played over, bringing the progression to an end upon the third chord, then the first *four* chords be played over in a similar manner, and lastly, the whole progression be played, every listener possessing a reasonable degree of musical sensibility will have realised that the two shortened progressions (which ended upon the chord of F and the chord of G respectively) had inconclusive and unsatisfactory endings—in fact, in the real sense of the word, they had no proper endings, and the only really satisfactory ending was produced by the employment of the Tonic chord as the final chord.

Ex. 67.

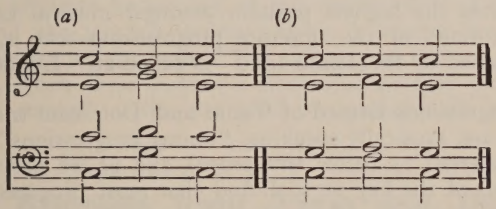


Such an illustration will reveal the fact that the Tonic triad, when heard amongst other similar triads, yet because it occupies a different position in the key from these other chords, possesses a special character, and produces a particular musical effect of its own—an effect of musical rest and finality—which cannot be produced by any other chord in the key. A corresponding statement may also be made with reference to every triad in a key, having due regard to the special character and musical effect which belongs respectively to each.

58. **The musical character of individual Triads.**—The special character which a chord possesses and reveals, when heard in connection with other chords, is the result of its occupying some fixed and clearly defined position in an established key, and thereby standing

in some special relation to other chords in the key. When *one* chord is sounded apart from any established key, its exact position in a key must be to some extent uncertain, and its special musical character due to the existence of such relation remains, therefore, undefined, but in the absence of other chords, the tendency of the mind is to regard a triad sounded "in isolation" as a Tonic triad, and to clothe it for the time being with the character of such, although it is obvious that no clear definition of a key is possible under these circumstances. It is, however, possible for *two* chords to create a sense of tonality sufficiently defined to impart an individual character to each of the chords, provided they stand in some familiar and characteristic relationship to one another. The most familiar relationship which can exist between two chords is that of Tonic and Dominant, illustrated in Ex. 68 (*a*), while the relationship of Tonic and Subdominant, illustrated in (*b*), comes next in familiarity and importance, either of which may be employed to satisfactorily define a key, provided the notes of the chords be suitably distributed.

Ex. 68.

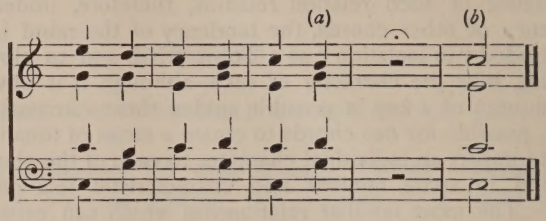


As in the major key, the triads upon the Tonic, Dominant and Subdominant, are all major triads, and they are also the only major triads belonging to the major key, we shall study their special musical characters, and the relationship which exists between them, before proceeding to a consideration of other kinds of triads.

59. **The Tonic and Dominant Triads, and their individual musical characters.**—The Tonic and the Dominant triads, although they are identical in quality—both being major common chords (or major triads)—stand musically in marked contrast to one another. This is due partly to their relative positions in the key, and partly also to the individual tendencies of the notes of which they are formed respectively. As we stated in a previous paragraph, the Tonic triad suggests to the mind musical rest and finality, while the Dominant triad suggests the musical opposite of this, and represents, or is typical of the absence of finality. This difference in their musical character and effect will be immediately perceived and recognized if a progression formed of several alternations of these two chords be listened to, and such progression be brought to an end upon the Dominant chord, as shown in Ex. 69 (*a*). The progression ended in this manner leaves the mind musically unsatisfied, and the effect, considered non-musically, would correspond to that produced upon the mind by the making of an unfinished statement in ordinary speech. Only when the Tonic

chord (*b*) is included as the final chord do we find that the passage has been brought to a satisfactory conclusion, or in other words, that our statement is now complete :—

Ex. 69.



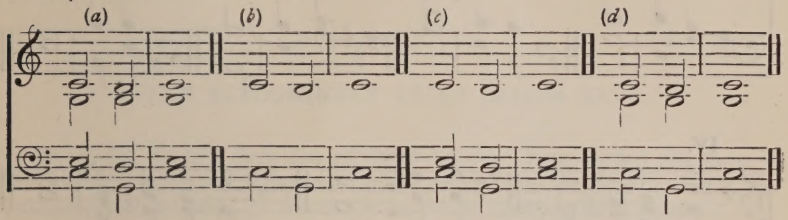
Owing to the fact that the Tonic triad preceded by the Dominant triad produces the most complete and satisfactory ending to a musical passage, this progression employed as a "cadence" (see Chap. XVI, CADENCES) is described as the "Perfect Cadence," and has occupied for centuries the highest position amongst musical cadences, while a cadence formed of the opposite progression—that is, the Dominant triad preceded by the Tonic triad—is called an "Imperfect Cadence."

60. Progressions formed of Tonic and Dominant triads in their root positions are, musically speaking, "strong progressions" (as the familiar passage referred to below will prove), and as we proceed to study the other triads of the key we shall find that most progressions of triads in their root position, and standing in a similar relationship to that of Tonic and Dominant—that is, having their roots either rising a perfect fourth or falling a perfect fifth—are also strong progressions, although not necessarily so strong, musically, as Tonic and Dominant progressions. [Illustration—the first three bars of chorus "The heavens are telling," *Haydn.*]

61. **Method of Dictation.**—When listening for the first time to a progression of two or more chords, with the object of writing such down from dictation, most pupils find some difficulty in following in any intelligent manner the progression of the several parts. The author has found that even the outside parts of such a simple progression as Ex. 70 (*a*) has given trouble to some who have never before attempted to listen to and to unravel the details of a harmonic progression with the object of writing it down *exactly* as it has been played. The pupil is frequently unable either to analyse the combinations of sound into their separate constituent parts, or to effectively direct and concentrate his attention in any special direction so as to follow the progress of any single part. It has sometimes happened that he can follow neither the Treble nor the Bass parts, unless these are played in a more prominent manner than the others. When introducing progressions of chords to a pupil for the first time, it may be therefore necessary at first to play only the two outside parts. as shown in (*b*), then when these have been written down correctly, adding either the Tenor part as in (*c*), or the

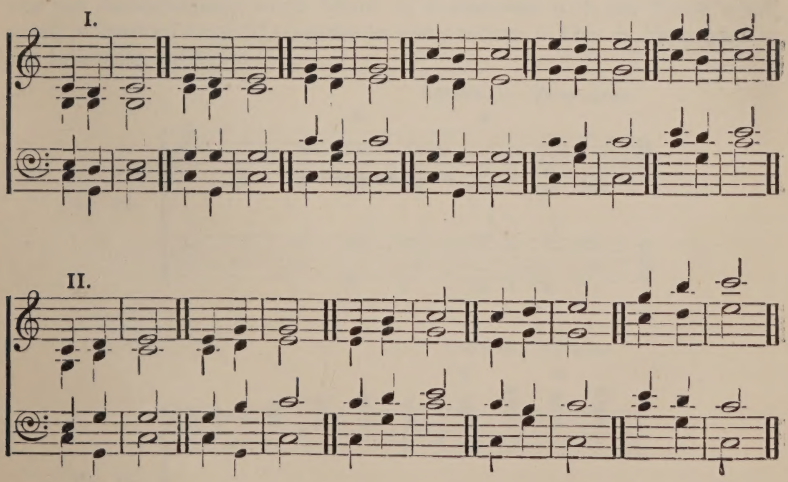
Alto part as in (*d*), and then finally playing the progression in four parts, as in (*a*). By this method it is possible to train the ear to follow the individual parts, and also the gradual building up of the chords.

Ex. 70.



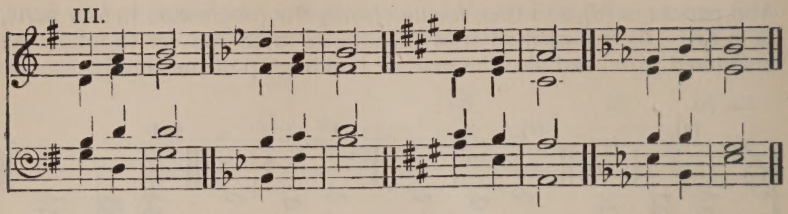
At the same time, however, in *harmonic* ear-training, where the separate parts are not given any individual melodic or rhythmic character, such a synthetical method should be employed merely to lead the pupil to an accurate knowledge of the construction of the whole combination, and the teacher should employ it only so far as it will lead to the attainment of this end. The training of the ear to follow individual parts, when these possess a distinctive melodic or rhythmic character, comes properly under the head of contrapuntal ear-training (see Part II).

Dictation Exercises upon Tonic and Dominant Triads:—

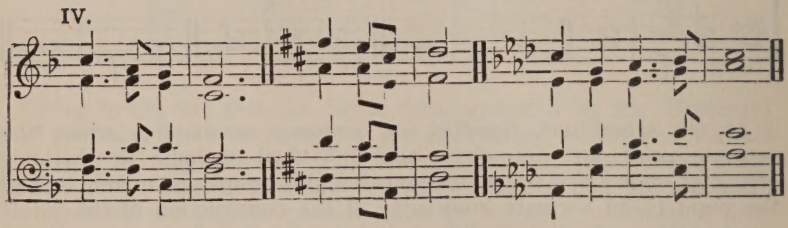


*** The above exercises should be transposed and dictated in other major keys.

III.



IV.

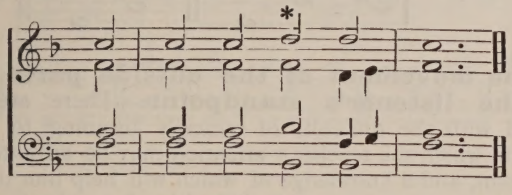


CHAPTER VI.

THE SUBDOMINANT TRIAD (MAJOR KEY).

62. If Ex. 71 (the first line of the Chorale "Nun danket alle Gott") be played over, it will introduce to the listener, at the fourth chord, the remaining major triad of the major key—*the Subdominant triad*:—

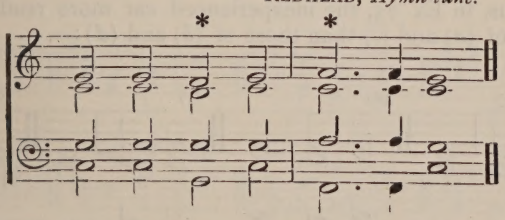
Ex. 71.



63. **The Dominant and the Subdominant Triads contrasted.**—The Subdominant, as its name implies, is the same distance *below* the Tonic as the Dominant is *above* the Tonic, in other words, it is the "under-dominant," and the triads upon the Dominant and the Subdominant, when heard in connection with the Tonic triad, stand in marked musical contrast to one another. This is illustrated in the following examples:—

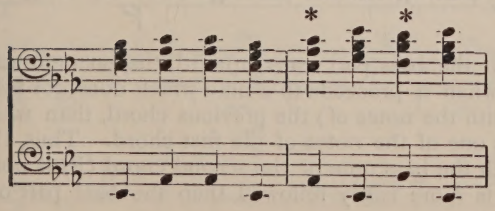
REDHEAD, *Hymn-tune.*

Ex. 72.



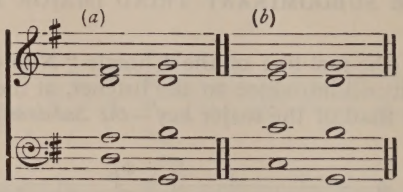
CHOPIN, *Nocturne.*

Ex. 73.



The different musical characters of the Dominant and the Subdominant triads are also effectively illustrated in their employment with the Tonic triad to form cadences, especially in the harmonization of the "Amen" to hymn tunes, and to other parts of religious services, when they are frequently employed in the key of G major, as shown in Ex. 74. The cadence formed by the Subdominant triad proceeding to the Tonic triad, one form of which is shown in (*b*), is called the *Plagal Cadence*:—

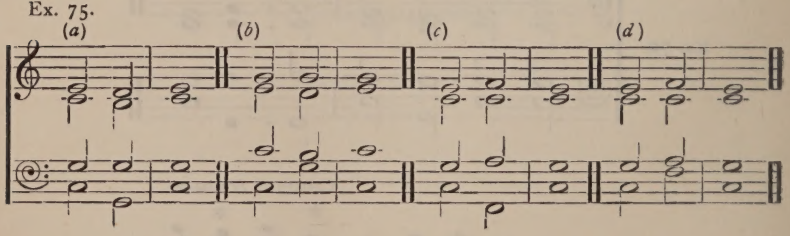
Ex. 74.



64. **The movement of the outside parts considered from the listener's standpoint.**—There are two matters connected with the difficulty of critically listening to harmonic ear-exercises to which the teacher's attention may be advantageously drawn at this point, and a knowledge of which will help him to realise and to understand the nature of such difficulties from the listener's point of view, when from other points of view none seem to exist.

(i) In connection with the movement of the outside parts, as a general rule, *the ear more readily follows a descending Bass part, or an ascending Treble part, than an ascending Bass part or a descending Treble part.* This is due to the fact that, in the former case, these two parts traverse a portion of the scale which is *not included within the compass of the previous chord*, and therefore their progress is naturally thrown into greater prominence and is more easily followed than if such were not the case. Thus, in Ex. 75, the inexperienced ear more readily follows the bass parts of (*a*) and (*c*) than those of (*b*) and (*d*):—

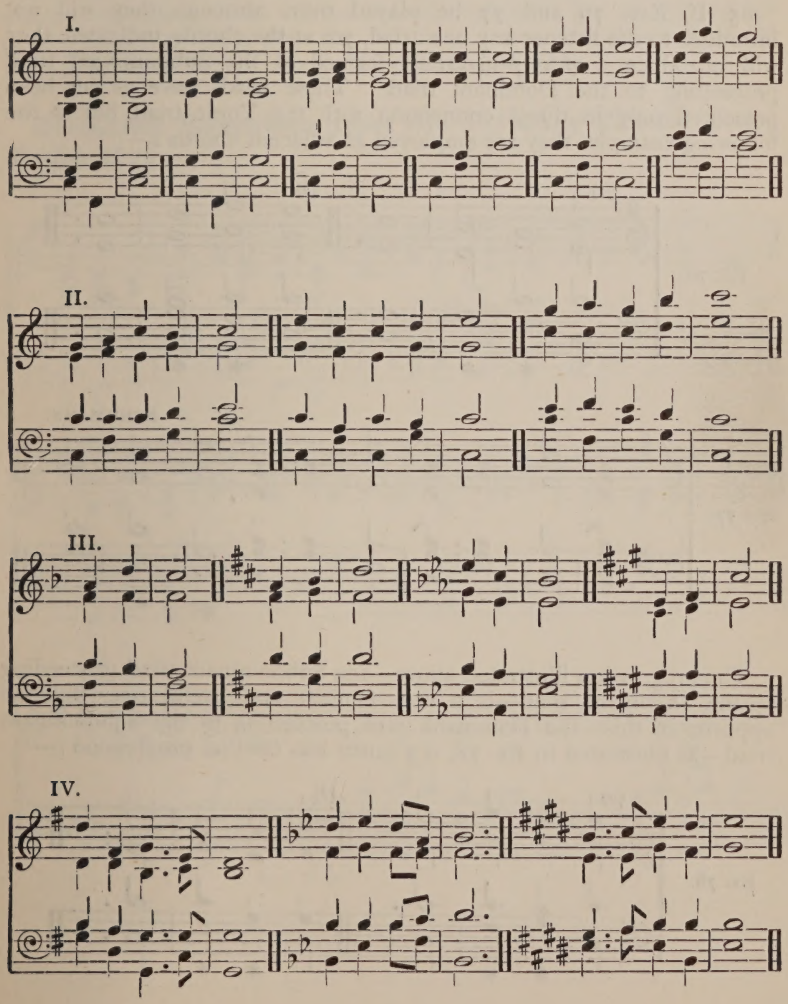
Ex. 75.



(ii) When the bass part leaps upward, the ear more easily follows its movement when it proceeds to a note which does not belong to (and is dissonant with the notes of) the previous chord, than when the second bass note is one of the notes of the first chord. Thus, the bass part of (*d*), in which the bass note of the second chord (F) is not a note of the first chord, is more easily followed than the bass part of (*b*), in which

the second bass note (G) is one of the notes of the previous chord. This special difficulty in following a bass part is greater when different positions and inversions of the same chord are heard as adjacent chords, as will be seen in Chap. IX and subsequent chapters.

Dictation Exercises.—The progressions in Exercise I upon the Tonic and Subdominant triads should be contrasted in sound with the corresponding progressions of Tonic and Dominant triads, given in Ex. I, Chap. V, p. 55, and, like them, should be transposed and dictated in other major keys :—

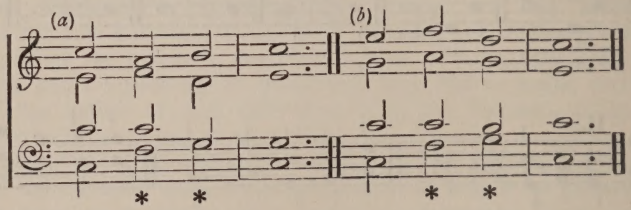


CHAPTER VII.

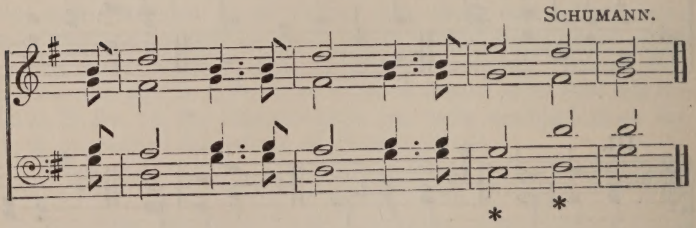
THE PRIMARY TRIADS (MAJOR KEY).

65. If Exs. 76 and 77 be played over, although they will not introduce to the listener any new triad, yet at the chords indicated they will introduce a *new progression*, formed of the Subdominant triad proceeding to the Dominant triad. These triads have as yet been presented only in direct connection with the Tonic triad, but in the following examples they are employed as adjacent chords :—

Ex. 76.

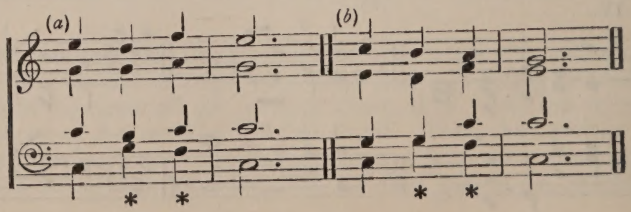


Ex 77.



The progression illustrated above—the Subdominant triad proceeding to the Dominant triad—is a very familiar and useful one, but the opposite of this—the Dominant triad proceeding to the Subdominant triad—as illustrated in Ex. 78, is a much less familiar progression :—

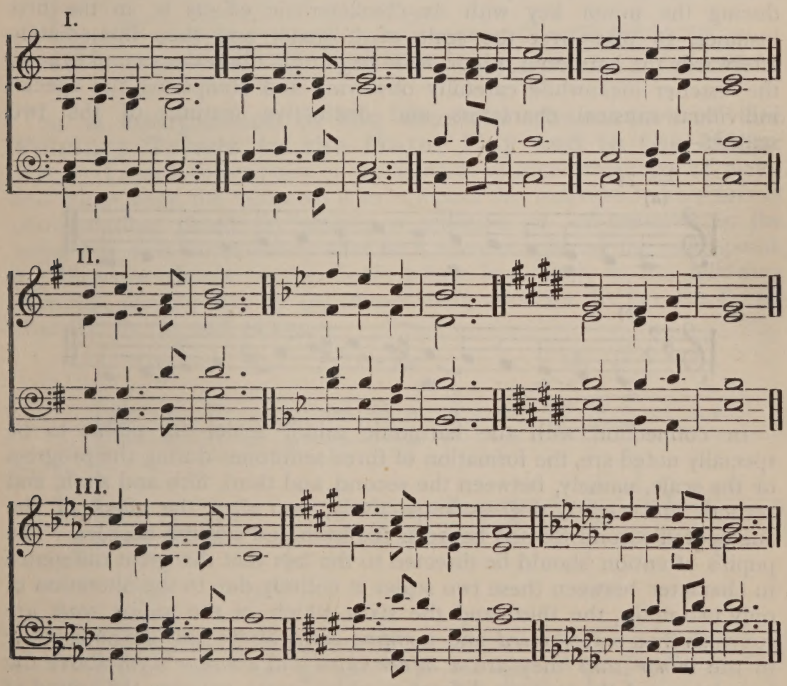
Ex. 78.



When the Subdominant and Dominant triads are employed as adjacent chords, the most satisfactory progression of the individual parts is generally obtained when the outside parts move in "contrary motion," that is, in opposite directions, as in Ex. 76 (*b*) and Ex. 77. Presented in this manner, these two triads produce a strong and characteristic musical effect, and (as in Exs. 76 and 77) are frequently employed to lead to a Perfect Cadence.

66. **The Primary Triads.**—As in the formation of the three triads which we have now considered—the Tonic, the Dominant and the Subdominant triads—every note of the diatonic scale is brought into employment, these triads will conclusively define the key of any passage or progression in which they may all occur. For this reason they are frequently described as "the primary triads" of a key.

Dictation Exercises upon the Primary Triads in the Major Key:—



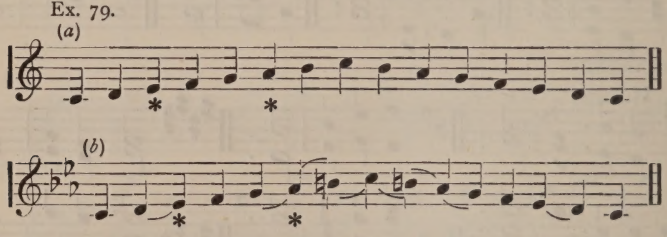
CHAPTER VIII.

THE PRIMARY TRIADS (MINOR KEY).

67. Having studied the musical character and effect of progressions formed of the three primary triads in the major key (all of which are major triads), before proceeding to consider the nature and character of the other triads of the major key (none of which are major triads), it will be well to consider the nature and character of the three corresponding (primary) triads of the minor key.

68. **The Minor Key and its special musical character.**—The simplest and most instructive method of introducing the minor key with its characteristic effects is, in the first instance, to play over the scale of C major and then immediately afterwards the harmonic minor scale beginning upon the same keynote, the listener meanwhile carefully observing and comparing the special individual musical characters and distinctive features of the two scales :—

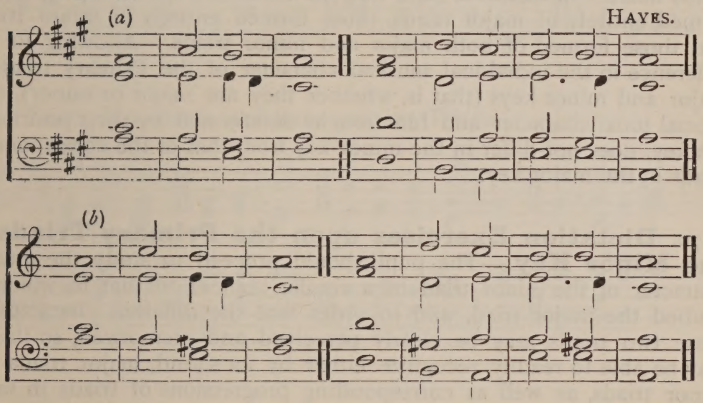
Ex. 79.



In connection with the harmonic minor scale, the points to be specially noted are, the formation of three semitones during the progress of the scale, namely, between the second and third, fifth and sixth, and seventh and eighth degrees respectively, and then the effect of the augmented second formed between the sixth and seventh degrees. The pupil's attention should be directed to the fact that the great difference in character between these two scales is entirely due to the alteration of only two notes, the third and the sixth, which in the *major scale* are respectively a *major third* and a *major sixth* above the keynote, while in the *minor scale* they are a *minor third* and a *minor sixth* above the keynote ; and the striking difference which exists between the sound of music in a major key and that of music in a minor key is due almost entirely (at least, so far as the simpler kind of music is concerned) to the extent to which these two notes enter into the formation of many important and frequently employed chords, and thereby colour the

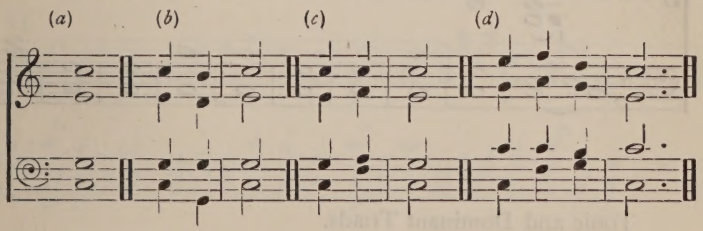
general musical effect of the whole key. This will be heard if the following chant be played, first in the major key, and then immediately afterwards in the minor key. The marked difference in the character of the two versions being due solely to the alteration of the C sharps and F sharps in (*a*) to C naturals and F naturals in (*b*) respectively :—

Ex. 80.

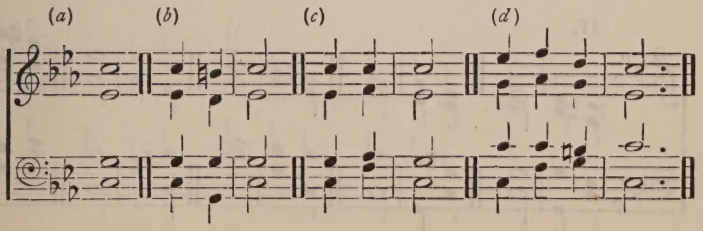


69. **A comparison of the musical characters of the Primary Triads in the Major Key and in the Minor Key.**—From a comparison of the general musical character of major and minor keys, the next step is to compare the individual characters of corresponding chords by playing a selection of ear-exercises in the major key, and, immediately after each exercise, playing the corresponding chord or chords in the Tonic minor key; thus, in the following exercises, playing Ex. 82 (*a*) immediately after Ex. 81 (*a*), Ex. 82 (*b*) after Ex. 81 (*b*), and so on :—

Ex. 81.



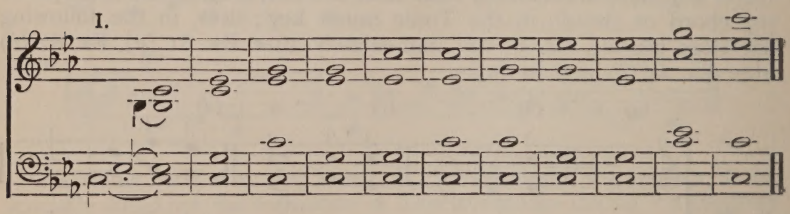
Ex. 82.



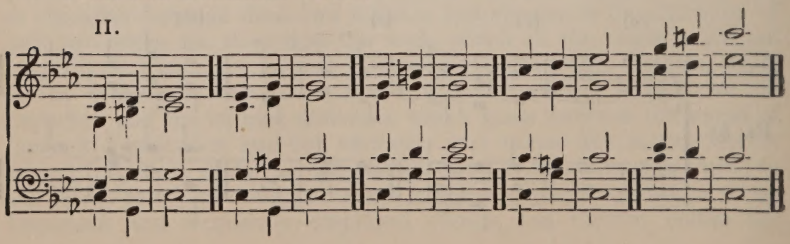
A study of Exs. 81 and 82 will bring to the pupil's knowledge the fact that in the minor key the Tonic and Subdominant triads are minor triads, while the Dominant triad is a major triad, it being absolutely identical in both major and minor keys, and these exercises will also illustrate the difference in musical character and effect between major and minor triads heard "in isolation," and also the difference between progressions formed entirely of major triads, those formed entirely of minor triads, and those formed of both major and minor triads. Allowing for the difference in the individual musical character of the Primary triads in major and minor keys (that is, whether they are major or minor), their special tonal character and function, as determined by their position in the key, does not differ in the minor key from that of the corresponding triads in the major key.

70. **Dictation Exercises upon the Primary Triads in the Minor Key.**—The pupil should proceed to study the musical character of the minor triad in a similar manner to that in which he studied the major triad, and in order that the different characters of these two triads may be clearly perceived and memorized, so that he may be able to readily recognize either by its sound, major triads and minor triads, as well as corresponding progressions of triads in major and *Tonic minor* keys, should frequently be presented next to one another, in order that their distinctive musical characters may be more easily compared and contrasted.

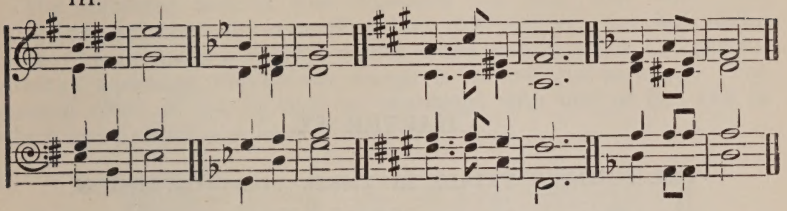
The Minor Triad.



Tonic and Dominant Triads.

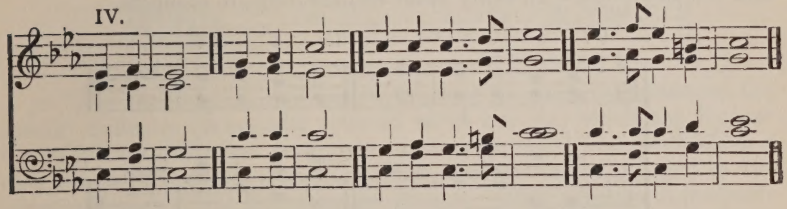


III.

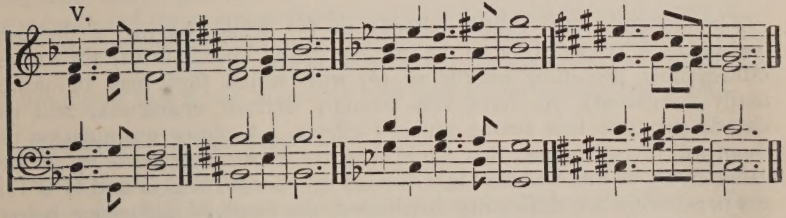


Tonic, Dominant, and Subdominant Triads.

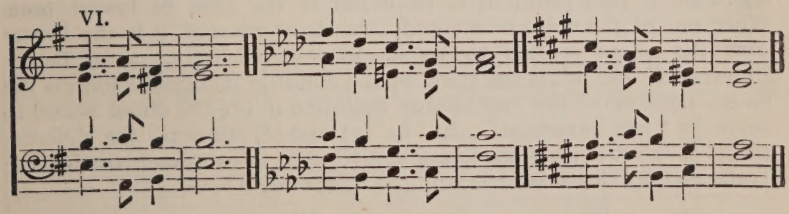
IV.



V.



VI.

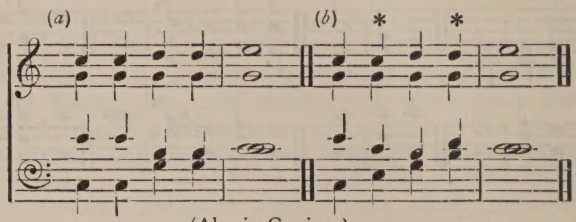


CHAPTER IX.

THE PRIMARY TRIADS IN THEIR FIRST INVERSION.

71. If Ex. 83 (*a*) and (*b*) be played over one after the other, the listener will observe that they differ from one another only at the second and fourth chords. In every other respect they are identical.

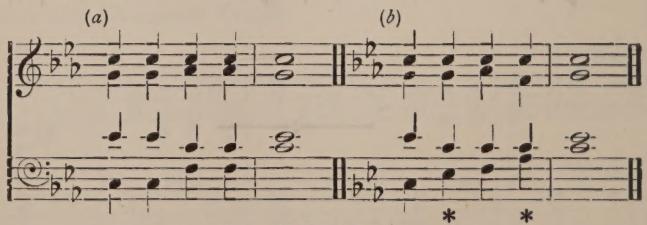
Ex. 83.



(Also in C minor).

The second and fourth chords in (*b*) while having a distinct resemblance, respectively, to the corresponding chords in (*a*) (or to the immediately preceding chords in (*b*) with which they may be more easily compared), yet have less strongly defined characters, and as chords, produce less strong musical effects. A closer examination of them will reveal the fact that, while they are respectively made up of the same notes as the immediately preceding chords (C E G and G B D) yet these notes are differently distributed, the essential difference being that in the two chords indicated, the third of the previous chord (the chord in its root position) is employed as the bass or lowest note. When one of the notes of a chord, other than the root, is in the lowest part, the chord is said to be in an inverted form, or to be an "inversion," and when the third of the chord in its original form is the lowest note, as in the two chords indicated in (*b*), the chord is said to be in its "first inversion." Ex. 84 (*a*) and (*b*) illustrate the different effects of the root positions and first inversions of two minor triads—the Tonic and Subdominant triads in the minor key :—

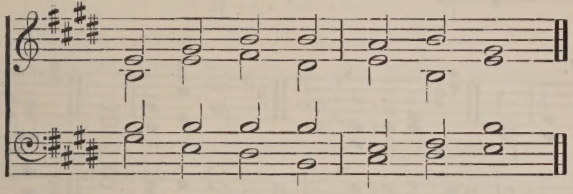
Ex. 84.



(Also in C major).

The following familiar line illustrates the fact, that while first inversions are musically less strong than root positions, yet their skilful employment imparts a pleasant variety to the harmonization and general effect of a passage, without any change in its essential harmony. The musical effect of Ex. 85 may be contrasted with that of Ex. 116, in which every chord is in its root position :—

Ex. 85.

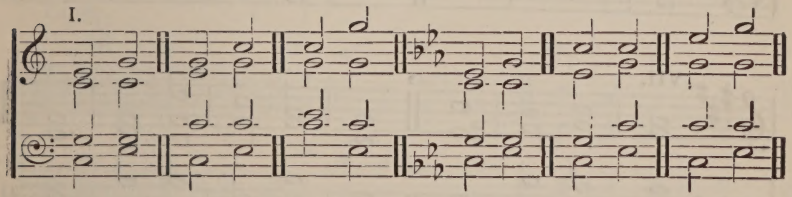


72. The introduction and employment of inversions emphasises the special difficulty (previously referred to in par. 64) which the listener has in following the bass part when this leaps upward and proceeds to a note which was present in the previous chord, or which belonged to this chord although it was not actually present. This difficulty is probably greatest when a chord is preceded by another position or inversion of the same chord, that is, when it is merely a different arrangement of the same notes of the previous chord, and in the playing (upon the piano) of such progressions for dictation purposes, unless care be taken that the bass part is as loud, or perhaps slightly louder than the other parts, the following of it is by no means an easy task to the inexperienced ear.

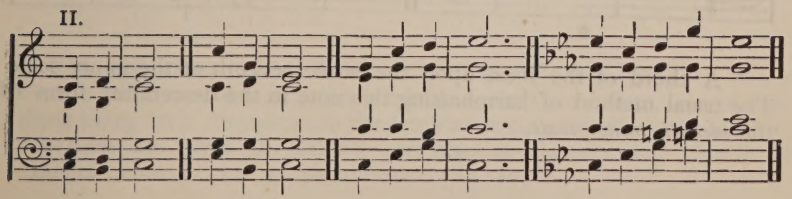
Dictation Exercises:—

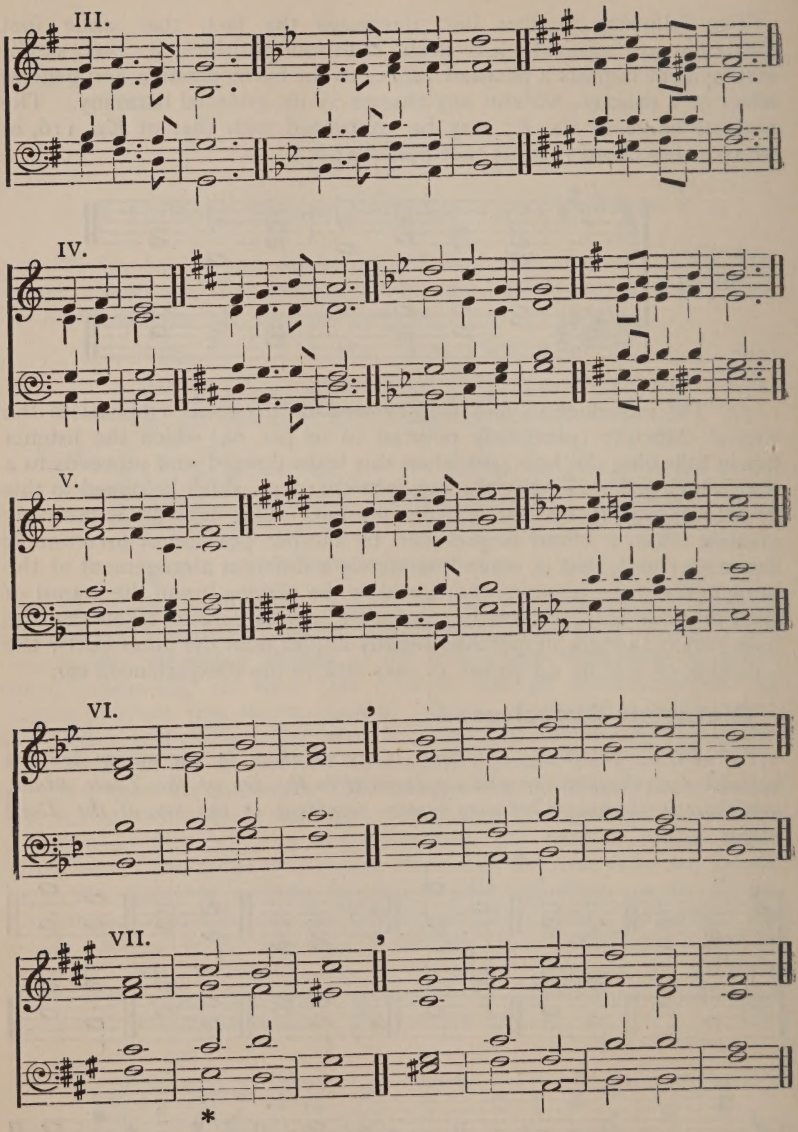
*** *Of the following exercises, many of those in the major key are suitable for transposition and employment in the key of the Tonic minor, and those in the minor key may be also employed in the key of the Tonic major.*

I.



II.





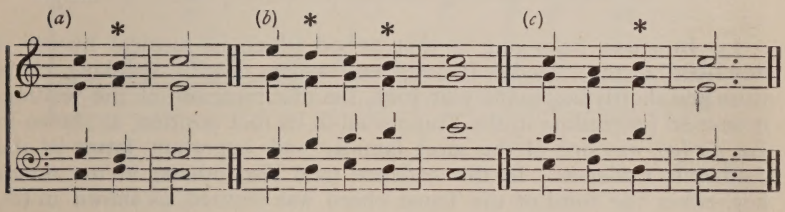
* A chord of the sixth upon the *minor* seventh of the minor scale. The usual method of harmonising this note in the descending form of the *melodic minor scale*.

CHAPTER X.

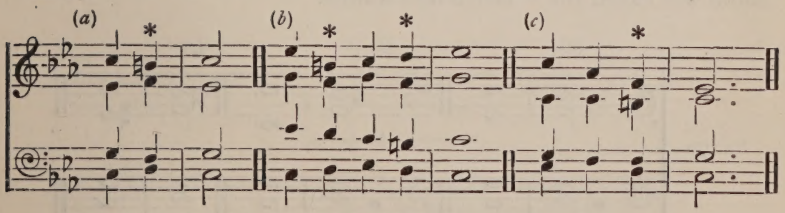
THE LEADING-NOTE TRIAD IN ITS FIRST INVERSION.

73. If Exs. 86 and 87 be played over, the listener will probably recognize that they consist almost entirely of the Tonic triad, root position and first inversion, and another chord (indicated by asterisks) which forms a smooth and familiar connecting link between either two Tonic triads, as in (*a*), or between a Tonic triad and its first inversion, as in (*b*). An examination of the notes of which this new chord is formed will show it to be *the first inversion of the leading-note triad*, and that it is formed of the same notes in both major and minor keys:—

Ex. 86.

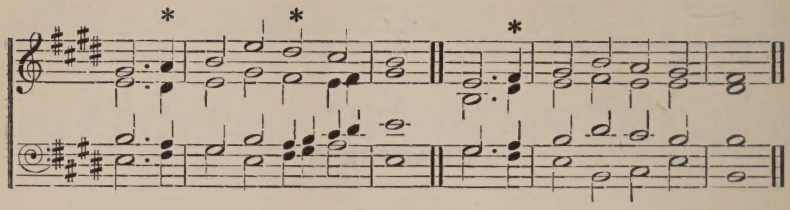


Ex. 87.



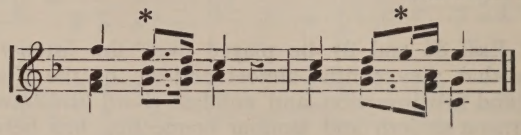
It is probable that, after the Primary triads, this first inversion comes next in familiarity amongst the triads and their inversions, its employment being well illustrated in the familiar hymn-tune of which the first two lines are given in Ex. 88, and also in the opening chords of Handel's chorus "Lift up your heads" (Ex. 89).

Ex. 88



HANDEL.

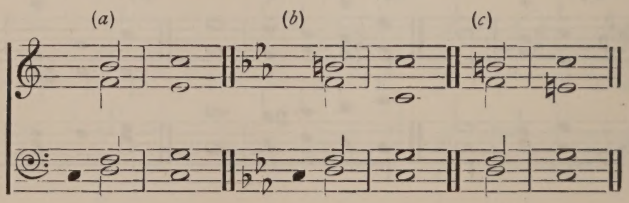
Ex. 89.



The reason for introducing the first inversion of the leading-note triad before the original position is, that the latter, being a diminished triad, is a discord, and also a discord which is not very frequently employed. Its consideration is therefore postponed until after the familiar discord, the chord of the dominant seventh, has been introduced, to which chord the leading-note triad is closely related, and considered in connection with which, its special nature and function will be more clearly understood (par 91).

74. In music belonging to that period which in musical history is described as the "Modal Period," and which, roughly speaking, came to an end shortly before the year 1600, the first inversion of the leading-note triad proceeding to the Tonic triad in its root position, as shown in Ex. 90 (*a*), was one of the most familiar and important forms of the Authentic Cadence. In this cadence (and also others) in the minor key, either the third of the Tonic chord was omitted, as shown in (*b*), or the major third of this final chord was employed in the place of the minor third, as shown in (*c*), and in these circumstances this major chord was called the "Tierce de Picardie."

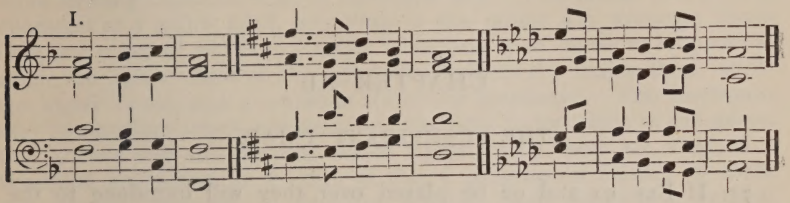
Ex. 90.

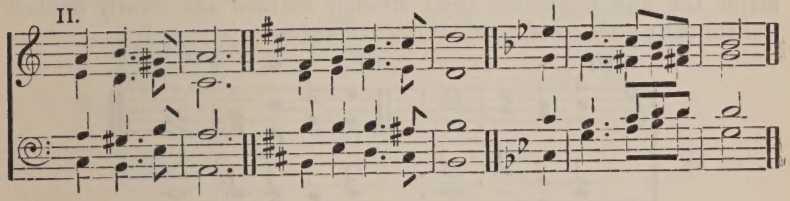


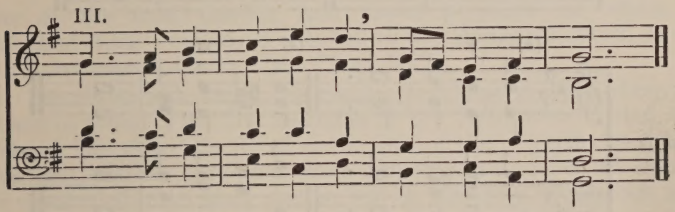
This cadence is still universally employed in exercises in strict counterpoint, when the *Canto Fermo* is in the lowest part, and the last two notes of this are the Supertonic followed by the Tonic, as in the bass of the above.

Dictation Exercises:—

I.



II.

III.

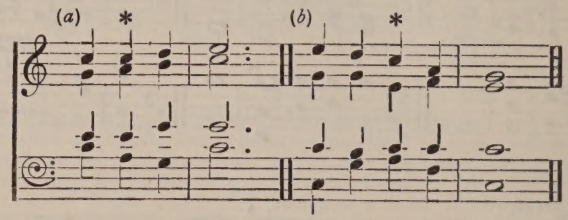


CHAPTER XI.

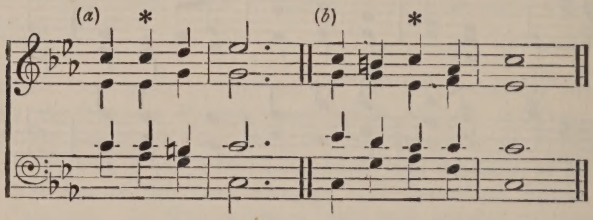
THE SUBMEDIANT TRIAD.

75. If Exs. 91 and 92 be played over, they will introduce to the listener, at the places indicated, a triad which possesses in both the major key and the minor key a strongly marked and clearly defined individuality—*the triad upon the Submediant:*—

Ex. 91.



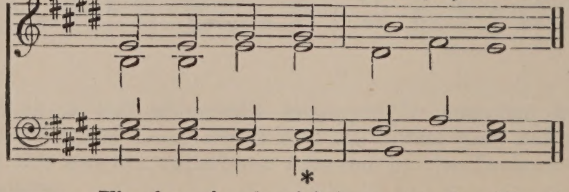
Ex. 92.



76. After the Primary triads, the triad which is most familiar when heard in its root position, is this triad. In the major key it is a minor triad, as seen in Ex. 91. and it is therefore the first, and also the most important minor triad to be considered in this key. In the minor key it is a major triad, as seen in Ex. 92, and it is one of the two major triads which can be formed in the minor key, the other major triad being that upon the Dominant. The special musical character of this triad, in both major and minor keys, is perhaps most completely realised when it is heard immediately after the Tonic triad, the bass falling a third, as illustrated in Ex. 93:—

Ex. 93.

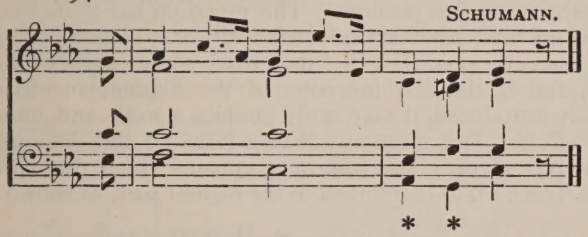
DYKES, *Hymn-tune.*



[ILLUSTRATION.—The first chords of Schumann's first Novellette.]

77. In the minor key, the Submediant triad seems to possess an even more striking character than in the major key. This is due partly to its character as a major triad, occurring in the minor key amongst triads only one other of which is a major triad, and also partly to its position upon the *minor sixth* of the scale, which places it a major third below the upper Tonic, and a semitone above the Dominant. The Dominant and Submediant triads, besides being the only major triads in the minor key, are the only two diatonic major triads whose roots are situated a semitone apart, and as a result of this, a progression formed of these two chords possesses a specially striking and distinctive musical character. Ex. 94 illustrates this:—

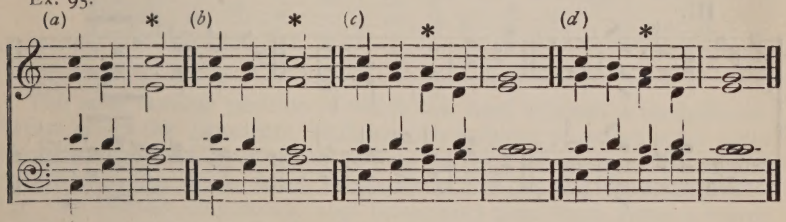
Ex. 94.



One of the most familiar and useful purposes for which the Submediant triad is employed is to follow the Dominant chord, so as to form an *Interrupted Cadence* (see Chap. XVI).

78. The chord with which the Submediant triad is most likely to be confused in sound is the first inversion of the Subdominant triad, when this chord has either the third or the fifth of the original chord in the highest part, and the only note which differentiates one chord from the other is sounded in an inner part, as will be seen by a comparison of the chords indicated in Ex. 95 (*a*) and (*b*), and of (*c*) and (*d*):—

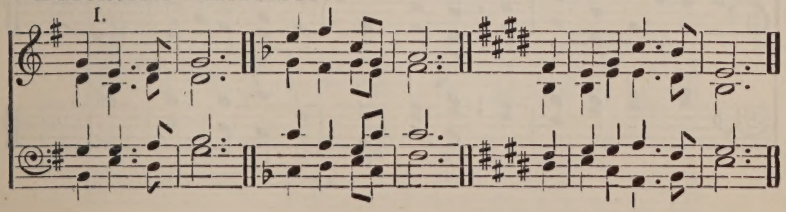
Ex. 95.

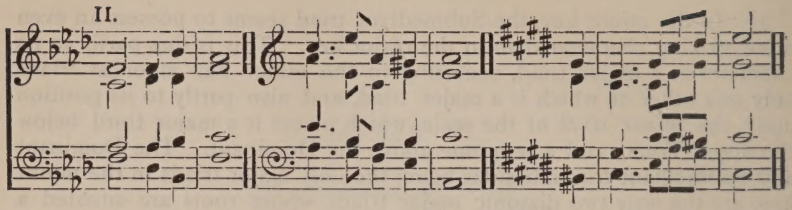


[(*a*) and (*b*) also in C minor.]

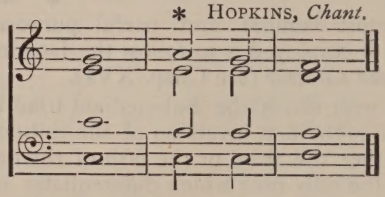
Dictation Exercises:—

I.



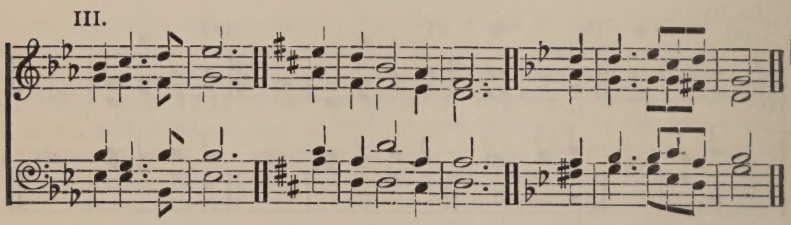
II.

79. **The first inversion of the Submediant Triad.**— The first inversion of this triad is a far less characteristic and familiar chord than the original position. This inversion has as its bass note the Tonic, which is so definitely associated with the Tonic triad and all the musical strength produced by this triad when sounded in its root position, and if the first inversion of the Submediant triad be not judiciously introduced, it may easily produce a weak and unsatisfactory musical effect. The most satisfactory form for this first inversion is when the root of the chord (the only note in which this chord differs from the Tonic triad) is sounded in the highest part, as shown below:—

Ex. 96.

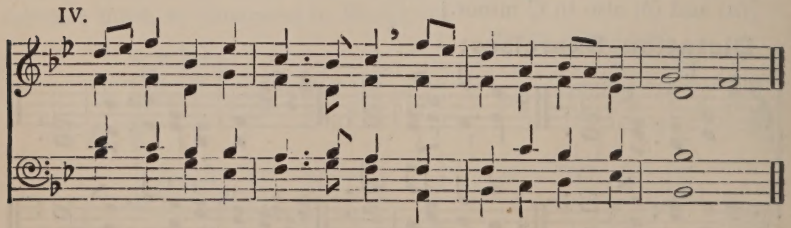


Dictation Exercises:—

III.



IV.

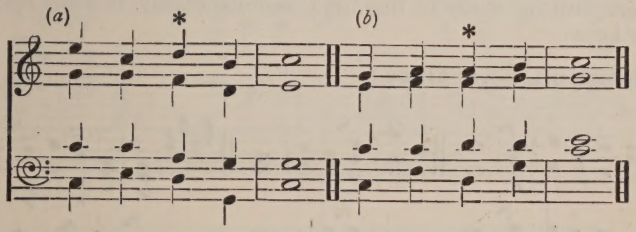


CHAPTER XII.

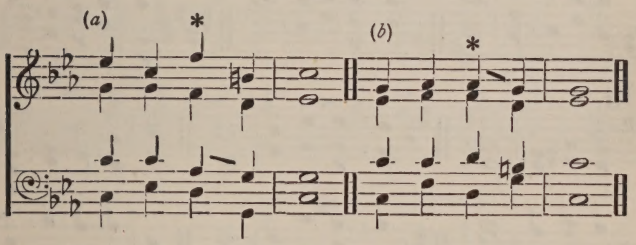
THE SUPERTONIC TRIAD.

80. If Exs. 97 and 98 be played over they will introduce to the listener, at the chords indicated, the only remaining triad which is at all frequently employed—*the triad upon the Supertonic.*

Ex. 97.

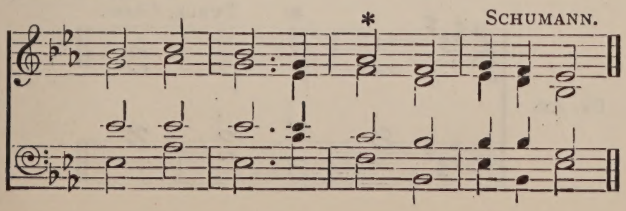


Ex. 98.



The most familiar position in which this triad is heard is immediately before either the Dominant triad, as shown above, or before some other chord having the Dominant as its bass note [as for example the second inversion of the Tonic triad, as shown in Ex. 103 (*b*)], the bass part of the two chords (Supertonic and Dominant) then leaps either a fourth upwards or a fifth downwards, thereby forming the foundation of a strong harmonic progression. The following passage from Schumann admirably illustrates this :—

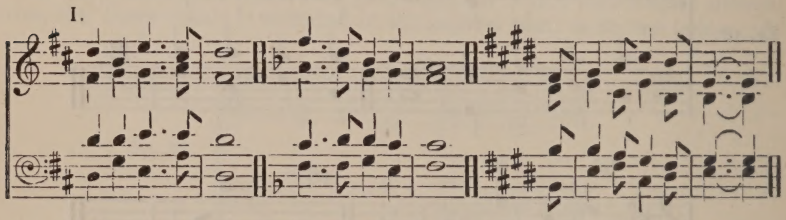
Ex. 99.



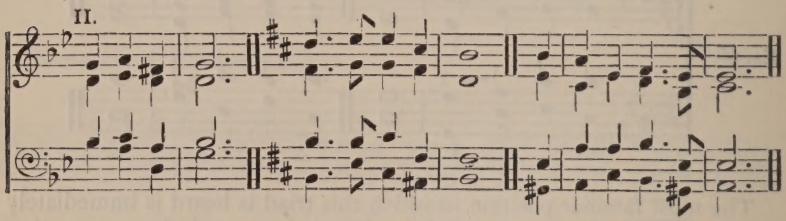
81. In the major key, the Supertonic triad is a minor triad, as will be heard when Ex. 97 (*a*) and (*b*) are played over, but in the minor key the corresponding triad is a "diminished triad," a triad of a kind which has not yet been introduced to the listener, the third from the bass note being a minor third but the fifth being a diminished fifth. A diminished triad is a dissonant triad, and the upper note of the dissonant interval (the diminished fifth above the bass note) is restricted in its progression. It generally falls a second, as in Ex. 98. In spite of the difference in the nature of this triad, as formed in the major key and in the minor key, its function and progression is almost identical in both keys. The differences in the progression of its several notes in the two keys are almost entirely due to the necessity of avoiding forbidden melodic progressions when it is employed in the minor key, but these will not interfere with the study of this triad, simultaneously, in both major and minor keys.

Dictation Exercises:—

I.

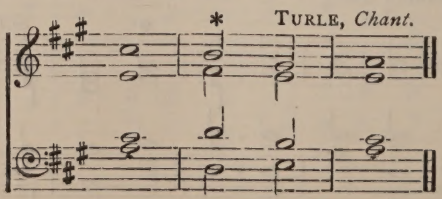


II.

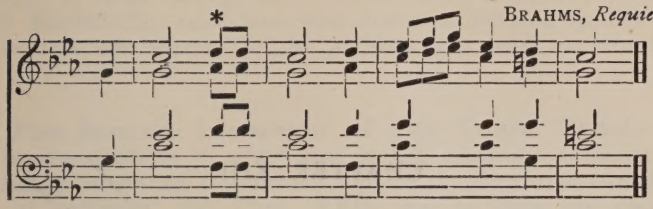


82. **First Inversion.**—Ex. 100 will introduce to the listener the first inversion of the Supertonic triad, which, like the original position, very frequently proceeds to some chord upon the Dominant, the bass rising a second. This first inversion is also not infrequently followed by the Tonic triad in its root position, as shown in Ex. 101, and this progression is occasionally employed to form a cadence (See Chap. XVI).

Ex. 100.

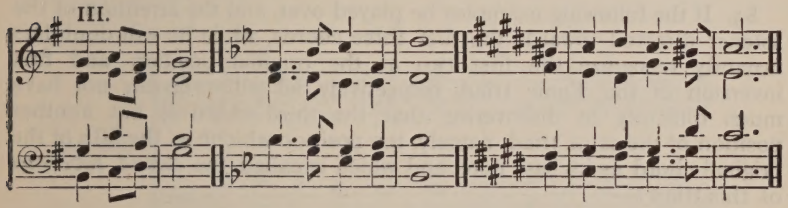


Ex. 101.

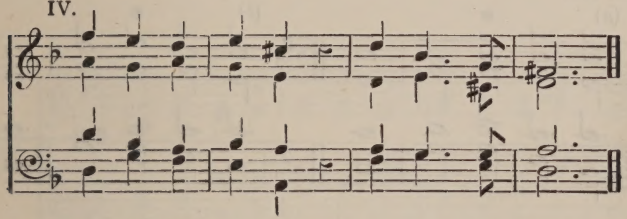


Dictation Exercises:—

III.



IV.

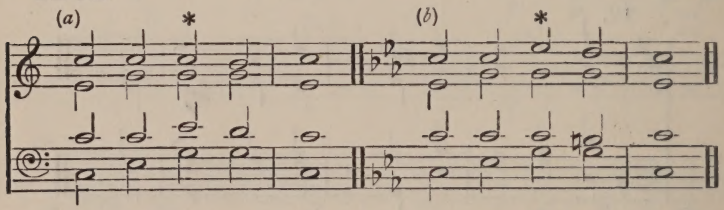


CHAPTER XIII.

THE SECOND INVERSION OF TRIADS.

83. If the following examples be played over, and the attention of the listener directed towards the first three chords, while he will doubtless instantly recognize the first two as the original position and first inversion of the Tonic triad, respectively, he will probably not have much difficulty in discovering that the third chord is but another position of the same triad, namely, the position whichh as the fifth of the original chord as its bass note, and which is called the *second inversion* of this triad :—

Ex. 102.

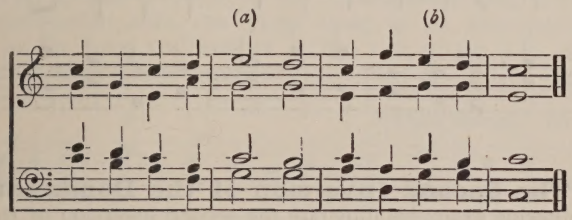


An examination of the above examples will show that in the second inversion of triads, the root and the third of the chord in its original position, stand respectively at the intervals of a fourth and a sixth above the bass note, which in this inversion is generally the note which is doubled. The second inversion of a triad does not, as a rule, reveal in any very prominent manner the special individual musical character which belongs to the original position of the same triad, and which is generally possessed to some extent by the first inversion, thus, in the first three chords of the above examples, while the original position suggests musical rest and finality, and the first inversion similar musical qualities but in a less degree, the second inversion suggests neither rest nor finality. This is largely due to the presence of a perfect fourth above the bass note, which imparts to this inversion something of the character of a discord, and creates in the mind the desire for another chord—generally a triad upon the same bass note—to immediately follow before a completely satisfactory musical effect is produced. Owing to the special character of this chord, due to the presence of a perfect fourth above the bass note, there are various restrictions referring to the manner in which it may be approached and quitted, but a

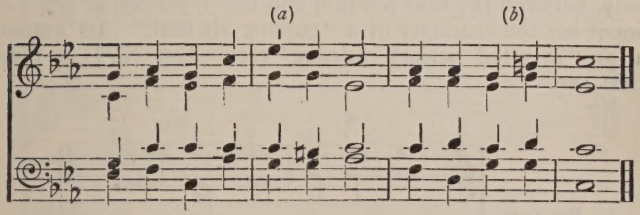
knowledge of these belongs rather to the study of Harmony than to that of Ear-training, and those who desire to become familiar with such matters are referred to the author's text book on Harmony, Chap. XIV.

84. **The Second Inversion of the Tonic Triad.**—The most familiar position in which this second inversion is employed is immediately before the Dominant chord in the formation of different kinds of cadences (see Chap. XVI), thus to form the *Imperfect Cadence*, as shown at (*a*) Ex. 103, or as leading to the *Perfect Cadence*, as shown at (*b*) Exs. 103 and 104, or to the *Interrupted Cadence*, as shown at (*a*] Ex. 104 :—

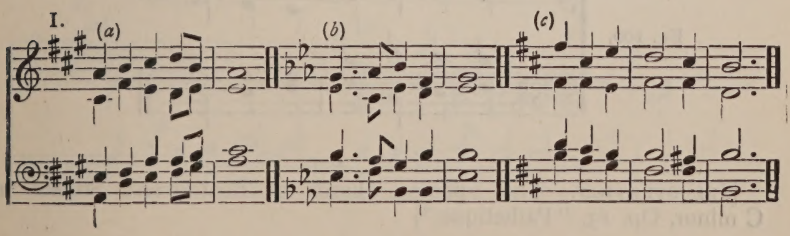
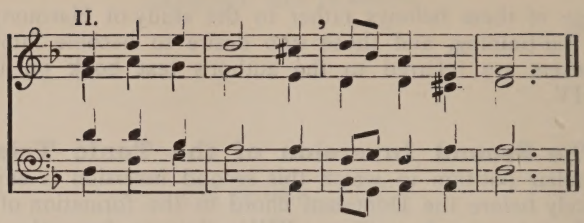
Ex. 103.

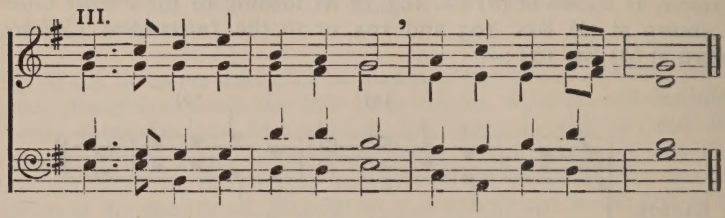


Ex. 104.



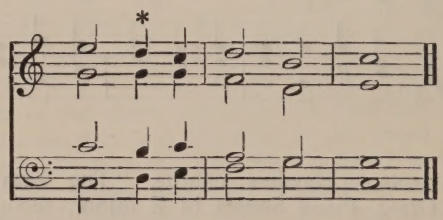
[ILLUSTRATIONS. — Haydn's chorus, "The heavens are telling," fourth bar; Greig, Piano Sonata in E minor, second subject of first movement.]

Dictation Exercises:—



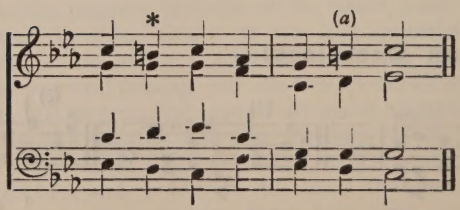


85. **The Second Inversion of the Dominant Triad.**—The following examples illustrate the second inversion of the Dominant triad in the only position in which it is at all frequently employed, namely, between the root position and first inversion of the Tonic triad, where it has the character of a "passing six-four." Its employment to form an "inverted perfect cadence" (see Chap. XVI) is illustrated at (*a*) Ex. 106.

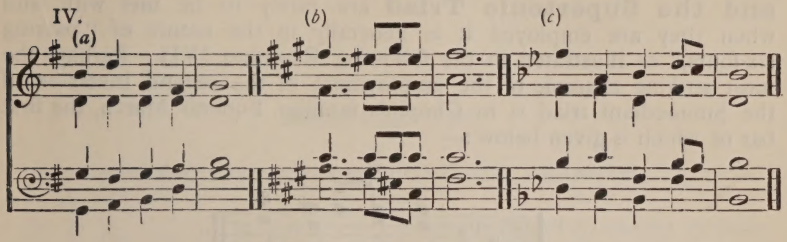
Ex. 105.



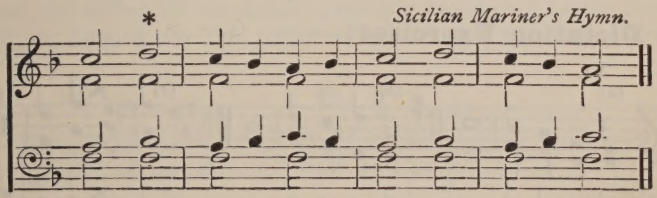
Ex. 106.



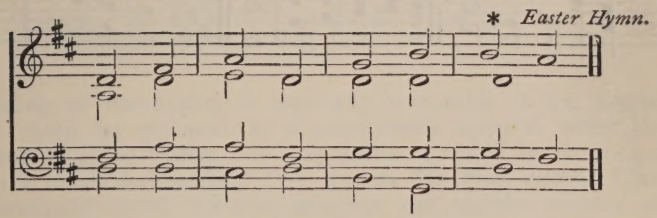
[ILLUSTRATION.—The opening chords of Beethoven's Sonata in C minor, Op. 13, "Pathetique."]

Dictation Exercises:—

86. **The Second Inversion of the Subdominant Triad.**—The second inversion of the Subdominant triad is generally heard in connection with the Tonic triad in its root position, as illustrated in Ex. 107, and also as in Ex. 108, where it is employed to form an "inverted plagal cadence" (see Chap. XVI):—

Ex. 107.

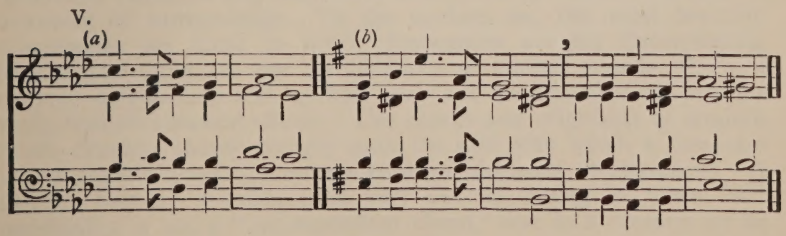


Ex. 108.



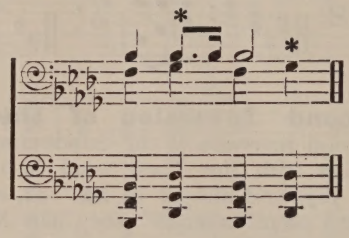
[ILLUSTRATIONS.—First line of Russian National Anthem, and Mendelssohn's chorus, "Baal, we cry to thee."]

Dictation Exercises:—



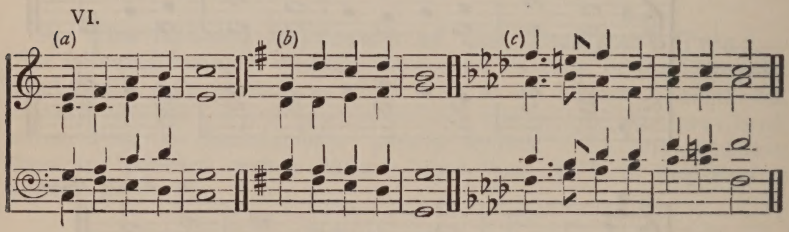
87. **The Second Inversions of the Submediant Triad and the Supertonic Triad** are rarely to be met with, and when they are employed it is generally in the nature of "passing six-fours," as illustrated in the following Exercises (VI). Perhaps the most striking example of the employment of the second inversion of the Submediant triad is in Chopin's familiar Funeral March, the first bar of which is given below :—

Ex. 109.



Dictation Exercises :—

VI.

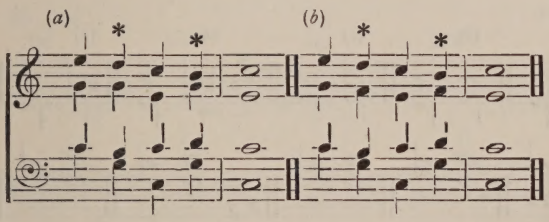


CHAPTER XIV.

THE CHORD OF THE DOMINANT SEVENTH.

88. If Ex. 110 (*a*) be played over it will be heard to consist entirely of Tonic and Dominant triads, the two triads which may be said to represent respectively, rest or finality, and absence of finality. If the Dominant triads in (*a*) be now altered, as in (*b*), and this modified version of the progression be played over, the listener will doubtless realise that the feeling suggested by the Dominant triads in (*a*) has by the alteration of one note in these chords, been made much more definite, and the feeling of non-finality intensified to such a degree that a very definite longing for the return of the Tonic triad has been created :—

Ex. 110.

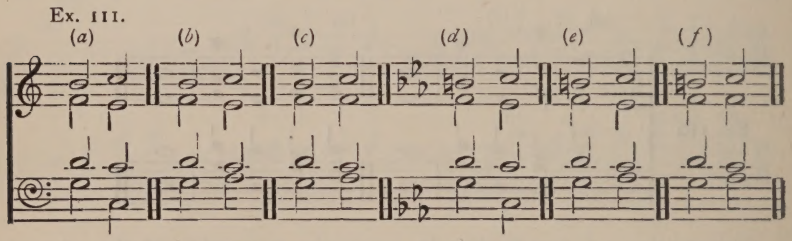


This feeling of non-finality is especially noticeable if the altered Dominant chord be repeated, or a pause made upon it, when the listener cannot fail to realise how impossible it would be to bring a passage to a satisfactory ending with this as the final chord. This altered Dominant chord therefore suggests not merely absence of finality but is distinctly typical of movement or progression, and it introduces to the listener a new class of chords (or, at least, a class of chords which has hitherto only had passing reference) which are called *Discords*. Discords in music must not be thought of as ugly, or even as unpleasant combinations of sounds, although injudiciously and unskilfully employed they may easily become so by reason of unsuitable treatment or surroundings. To the modern ear, the most beautiful progressions are those in which dissonances are the distinguishing feature, and there are few combinations of musical sounds which, if suitably approached and quitted, may not be employed to produce really beautiful musical effects. The charm and originality of modern music depends almost entirely upon the skill with which a composer introduces and treats the various kinds of dissonant combinations. A discord, because it produces a very definite feeling of unrest and non-finality, is not a "self-dependent chord," that is, it requires to be

followed by some other chord which will supply that feeling of rest and satisfaction for which the discord has created the desire, and this chord is called the "*the resolution of the discord.*"

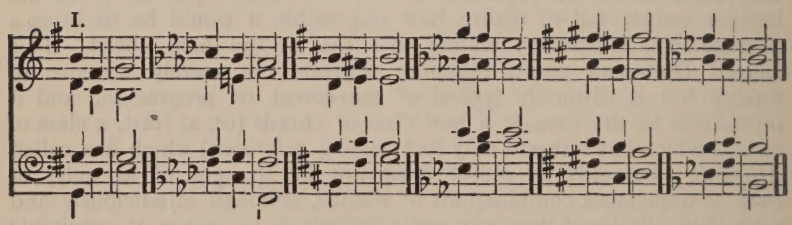
89. The discord employed in Ex. 110 (*b*) will be seen to consist of the minor seventh above the Dominant, in addition to the notes of the Dominant triad, and for this reason it is called "*the chord of the Dominant Seventh.*" This chord, which is identical in both major and minor keys, is one of the most familiar and useful discords which exist. Its most familiar resolution is upon the Tonic triad in its root position, the bass rising a fourth or falling a fifth, when the third and seventh of the Dominant chord proceed respectively to the root and third of the Tonic chord, as shown in Ex. 111 (*a*) and (*d*). The characteristics of this resolution are its strength, and the completeness with which it defines the key. Another familiar resolution is upon the Submediant triad, as shown in (*b*) and (*e*), when the bass rises a second, A less familiar resolution is upon the first inversion of the Subdominant triad, in which case the seventh remains stationary to become a note of the next chord, as shown in (*c*) and (*f*). This is the least characteristic of the three above-mentioned resolutions :—

Ex. 111.

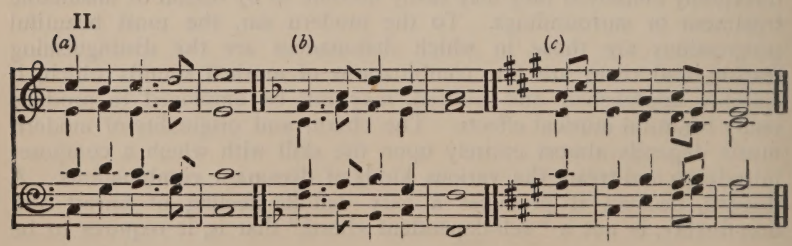


Dictation Exercises:—

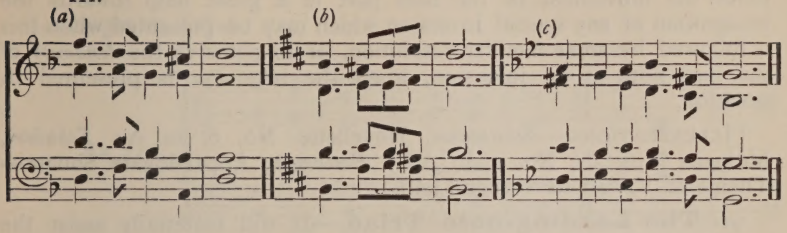
I.



II.

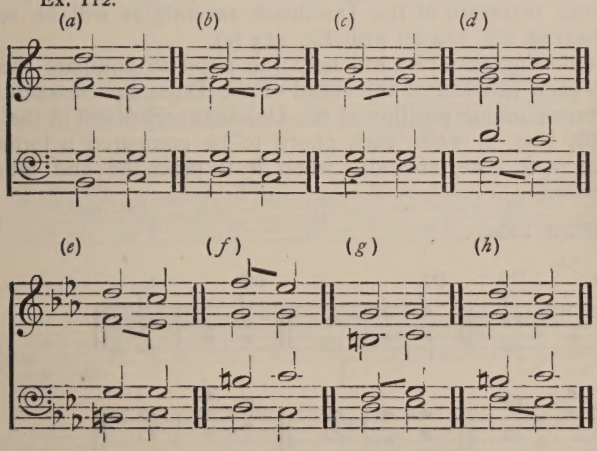


III.



90. **The Inversions of the Chord of the Dominant Seventh.**—The chord of the Dominant seventh has three inversions, of which the third, the fifth and the seventh of the chord are the bass notes respectively. These inversions almost invariably resolve upon the Tonic triad, either in its root position or in its first inversion, and the seventh always falls a second to its resolution, except in the second inversion, when, if the bass rises a second, the seventh may also rise a second. The three inversions with their resolutions on to the Tonic chord are illustrated in Ex. 112.

Ex. 112.



A comparison of the musical effect of this chord in its root position with that of its various inversions, will show that while the original position of the chord, as might be expected, naturally possesses the strongest and most clearly defined character, yet the third inversion which has the seventh as its bass note, is also a strong and very characteristic combination. After these two positions of the chord, the first inversion, in which the bass has a fixed progression (rising a semitone) ranks next in the possession of a distinctive musical character, while the second inversion, in which the bass may either rise or fall a second, is the least characteristic position of the chord. To be able to

follow the movement of the bass part is a great help towards the recognition of any special inversion which may be presented when this is followed by some familiar resolution, or to perceive the *tendency* of the bass note of an inversion, when the inversion is presented in isolation.

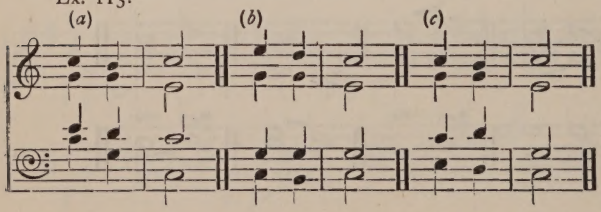
[ILLUSTRATIONS.—*Schumann*, Novellette No. 6, in A: *Schubert*, Momens Musicals, No. 2, in A♭; *Beethoven*, Appassionata Sonata—Theme of Variations—second half.]

91. **The Leading-note Triad.**—It will materially assist the pupil to acquire a clear and definite idea of the musical effect of the chord of the Dominant seventh and its inversions if these be compared and contrasted in sound with other somewhat similar chords which may be formed upon the same bass notes and which are frequently followed by the Tonic chord or its first inversion. The rarely employed *Leading-note triad*, which is dissonant in both its original position and second inversion, is, in these two positions, formed upon the same bass notes as the first and third inversions of the Dominant seventh, and also resolves in an identical manner, respectively, to these two inversions, as will be seen in Ex. 115 (*b*) and (*d*). The familiar first inversion of this triad (see Chap. X) also resembles, both in its nature and progression, the second inversion of the Dominant seventh, as will be seen by a comparison of Ex. 114 (*c*) with Ex. 115 (*c*).

The following examples will help the pupil to compare the musical effect of each position of the chord of the Dominant seventh with that of the corresponding position of the Dominant triad and of the Leading-note triad, that is, when each chord to be compared is formed above the same bass note, and also when it is preceded and followed by similar chords :—

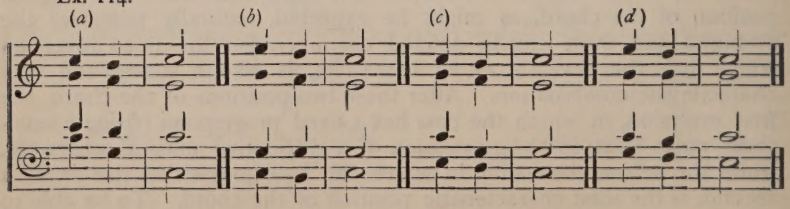
Dominant Triad.

Ex. 113.



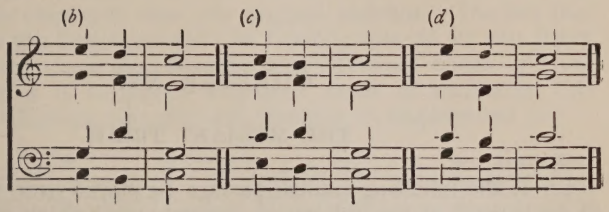
Dominant Seventh.

Ex. 114.



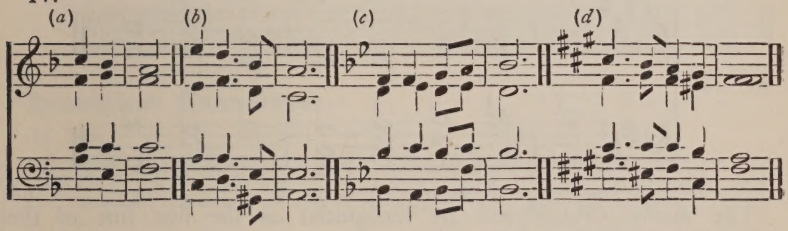
Leading-note Triad.

Ex. 115.

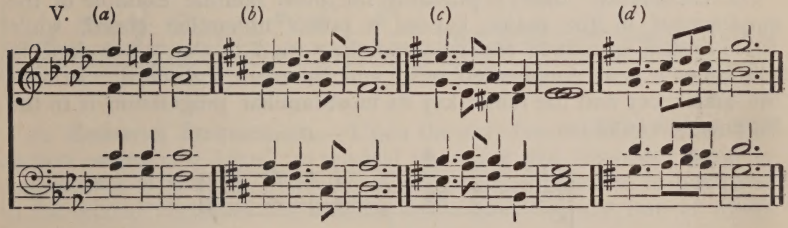


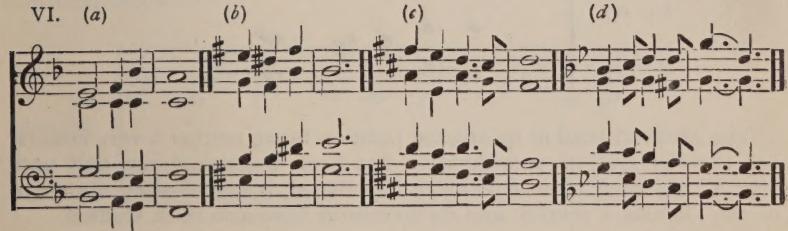
Dictation Exercises:—

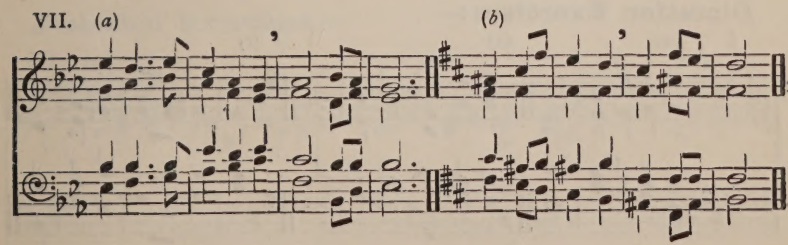
IV.



V.



VI.

VII.

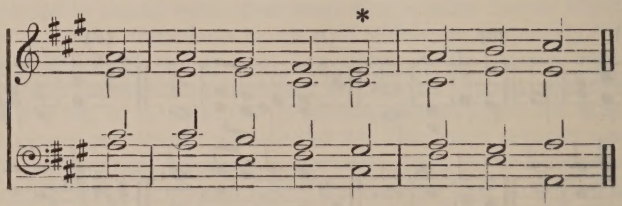


CHAPTER XV.

THE MEDIANT TRIAD.

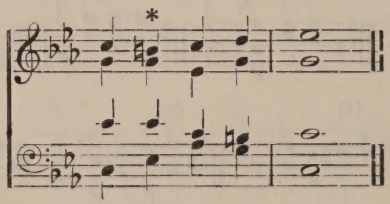
92. If the following familiar passage be played over, it will introduce to the listener, at the fifth chord, the only triad which has not yet been considered—*the Triad on the Mediant*:—

Ex. 116.



The above (which will be recognized as the first line of the "Old Hundredth" tune) is probably the most familiar example of the employment in the major key of a rather unfamiliar chord, while Ex. 117 will introduce the corresponding triad in the minor key, in which key it is an Augmented triad, and therefore a discord. In both the major key and the minor key its most familiar progression is to the Submediant triad:—

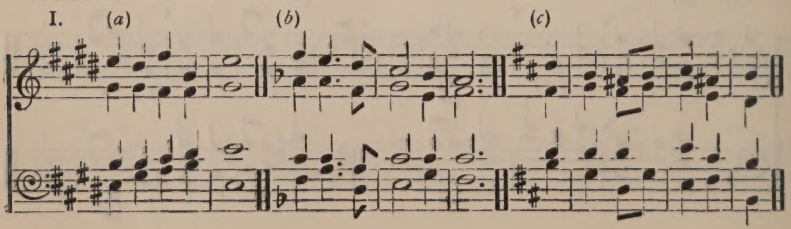
Ex. 117.



The Mediant triad in its original position being neither a very familiar nor useful chord, its consideration has been postponed, not only until after all the other triads have been introduced, but until after the chord of the Dominant seventh and its inversions have also been studied.

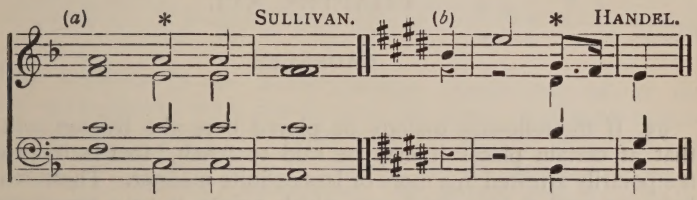
Dictation Exercises:—

I. (*a*) (*b*) (*c*)

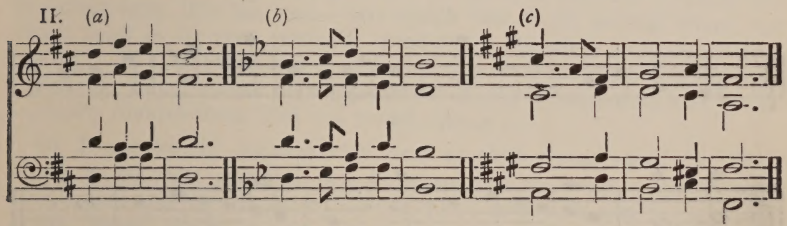


93. **First Inversion.**—The first inversion of the Mediant triad is more frequently employed than the original position. The fact that this inversion has the Dominant and the Leading-note as its two lower notes, gives it very much the character of a Dominant chord, and the manner in which it is frequently employed tends to emphasise this character. The following examples will illustrate its employment :—

Ex. 118.

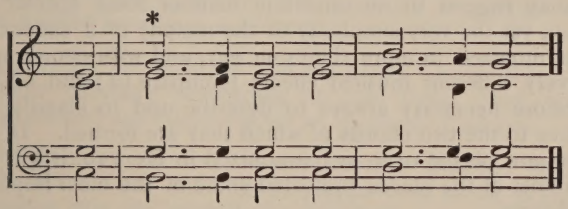


Dictation Exercises:—

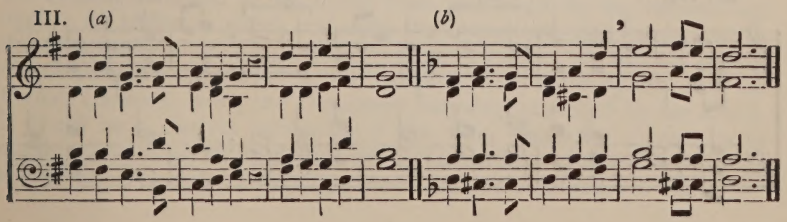


94 **Second Inversion.**—Upon the very few occasions when this second inversion is heard, its musical character and treatment seem to suggest that of the first inversion of a Dominant chord, as is illustrated in the second chord of the familiar hymn-tune, the first line of which is quoted below :—

Ex. 119.



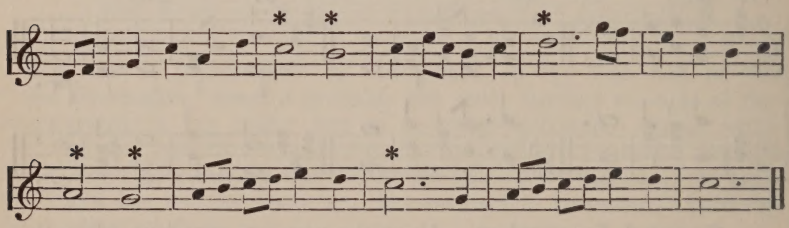
Dictation Exercises:—



CHAPTER XVI.

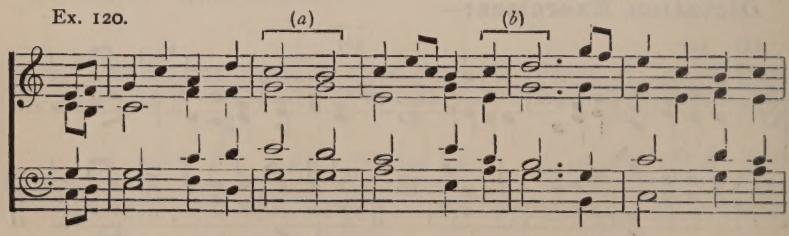
CADENCES.

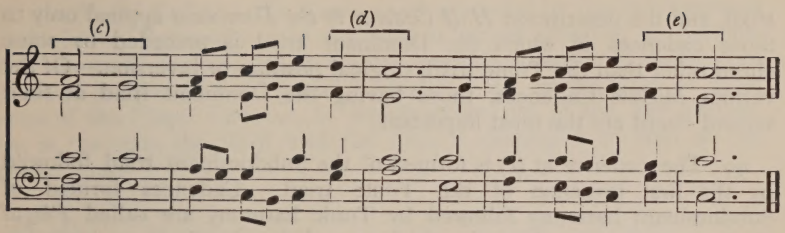
95. If the following melody be played over, the listener will notice that at certain places it may be said to "halt," that is, its progress is temporarily arrested in a more or less definite manner. These temporary halts, as well as the final one which brings it to a termination, are called *Cadences or closes.*



While cadences of various kinds, and suggesting different degrees of finality, may enter in an essential manner into the construction of a melody, as is illustrated above, and while to the musician a melodic cadence may suggest in no uncertain manner some special harmonic progression, yet the very simplicity of the melody of a cadence enables it to be harmonized in more than one way, and with chords which may produce very different musical effects (compare (*d*) and (*e*) Ex. 120); it is therefore necessary always to describe and to classify Cadences by reference to the two chords of which they are formed. If the above melody be now played over, as harmonized in Ex. 120, it will introduce to the listener at the places indicated some of the most important and useful cadences.

Ex. 120.





96. The cadences in the above example should first of all be compared upon general lines, that is, as to *the degree of finality which they may suggest*, and which may make them suitable or unsuitable for fulfilling the highest function of a cadence, namely, that of bringing a composition to a satisfactory termination. By playing over Ex. 120 in an experimental manner and making it end in turn at (*a*), at (*b*), at (*c*), at (*d*), and then finally at (*e*), it will be obvious that out of these five cadences only the last one—that which has as its second chord the Tonic triad in its root position—produces a complete and satisfactory ending. This fact instantly reveals the nature of the chief fundamental difference which exists between certain kinds of cadences, and which naturally divides them into two broad classes :—

(i) Those which, because *they have as their second chord the Tonic triad in its root position*, can be employed to bring a piece to a conclusion, and are therefore called FINAL CADENCES, and

(ii) Those which, because their second chord is *not* the Tonic chord in its root position, cannot be employed as the final chords of a piece, but only during its progress, and are therefore called MIDDLE CADENCES.

Although a Middle Cadence cannot be employed to bring a piece to a termination, yet Final Cadences are frequently employed during the progress of a piece as well as at its end.

97. In Ex. 120 it will be heard that the FINAL CADENCE is formed by the Dominant harmony proceeding to the Tonic triad, and Final Cadences so formed are called *Perfect or Authentic Cadences*.

98. If the attention of the listener be now directed towards the MIDDLE CADENCES, and Ex. 120 be played over as far as (*b*), he will probably realise that the second chord of both (*a*) and (*b*) is the same chord, namely, the Dominant triad, although in (*a*) this is preceded by the second inversion of the Tonic triad, and in (*b*) by the Submediant triad. All cadences which end upon the Dominant triad are frequently classed together and called either *Imperfect Cadences*, or *Half Cadences to the Dominant*. As, however, the cadence at (*a*) is the opposite of the Perfect Cadence, being the Dominant harmony preceded by the Tonic, it would be a distinct advantage if the term *Imperfect Cadence* were employed to describe only this and corresponding progressions, that is, when the Dominant triad is preceded by some position of the Tonic

triad, and the description *Half Cadence to the Dominant* applied only to those cadences in which the Dominant triad is preceded by some chord other than the Tonic triad, original position or inversion. Of the various Middle Cadences, those having the Dominant triad as their second chord are the most important.

99. The cadence at (*c*) is formed of the Subdominant triad followed by the first inversion of the Tonic triad. Cadences formed of Subdominant harmony followed by Tonic harmony are called *Plagal Cadences*, and as a cadence in which one of the chords is an inversion is called an *Inverted Cadence*, this cadence is therefore an *Inverted Plagal Cadence.*

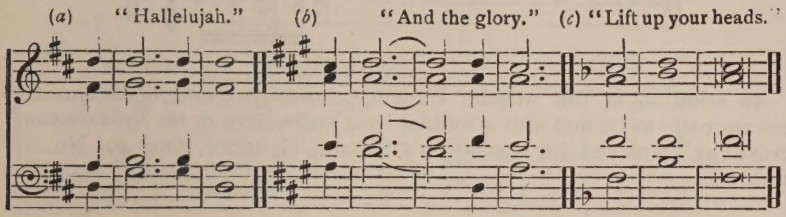
100. In order to fully understand the nature of the cadence at (*d*) Ex. 120 should be played over as far as (*d*), but instead of ending upon the chord of A, the Tonic triad (as it appears as the final chord of the passage), should be substituted for the Submediant triad, thus introducing a Perfect Cadence at (*d*). These eight bars will then be found to make a complete and satisfactory musical sentence, and the two following bars would then appear to be redundant and meaningless. If, however, we now play the whole example as printed, it will at once be perceived that the progress to the Final Cadence, which is naturally expected at the end of the eight bars [both because of the construction of the melody and also by its progression at (*d*)], is "interrupted" by this Submediant triad following the Dominant triad, and the listener, who thought the passage was coming to an end at this point, is deceived by the unexpected appearance of the Submediant triad in the place where a Tonic triad would naturally be heard. The cadence thus formed by the Dominant chord proceeding to the Submediant triad is appropriately called the *Interrupted, False or Deceptive Cadence.* The interruption caused by the introduction of this cadence makes an extension of the passage to ten bars necessary in order to bring it to an end with a Final Cadence.

101. In addition to the cadences illustrated in Ex. 120, there are several others, more or less resembling these, to which passing reference must be made.

102. **Final Cadences—the Perfect Cadence.**—While the Perfect or Authentic Cadence employed in Ex. 120 (the chord of the Dominant seventh proceeding to the Tonic triad) is probably the most familiar form of this cadence, yet any Dominant chord (triad or discord) may be employed as the first of the two chords forming the Perfect Cadence. Of *Inverted Perfect Cadences* one of the most familiar, as well as one of the earliest forms, is the progression of the first inversion of the Leading-note triad to the Tonic triad, as shown in Ex. 90, par. 74.

103. **The Plagal Cadence.**—While the Perfect Cadence is the most valuable and familiar Final Cadence, especially in modern music,

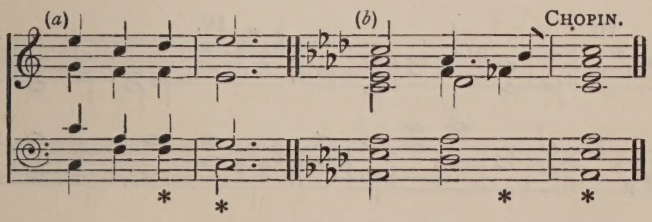
yet the *Plagal Cadence*—the Tonic triad preceded by the Subdominant triad—is very frequently to be met with in sacred music of all periods. The following examples, which are the concluding chords of well-known choruses in Handel's "Messiah," illustrate the employment of three forms of the Plagal Cadence, in which each note of the two chords, that is, the root, the third and the fifth, is employed in turn as the highest note:—

Ex. 121.

When this cadence is employed as a Final Cadence in the *minor key*, the major triad upon the Tonic is often employed instead of the minor triad as the final chord (see par. 74).

[ILLUSTRATION.—Chopin's Nocturne, G minor, Op. 37, Final Cadence.]

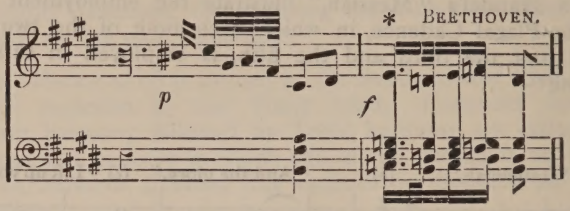
104. **Modified Plagal Cadence.**—In addition to the usual forms of the Plagal Cadence, two other final cadences of a Plagal character are occasionally employed, namely, the first inversion of the Supertonic triad proceeding to the Tonic triad, as shown in Ex. 122 (*a*), and also more frequently "the chord of the added sixth" upon the Subdominant proceeding to the Tonic triad, as shown in (*b*):—

Ex. 122.



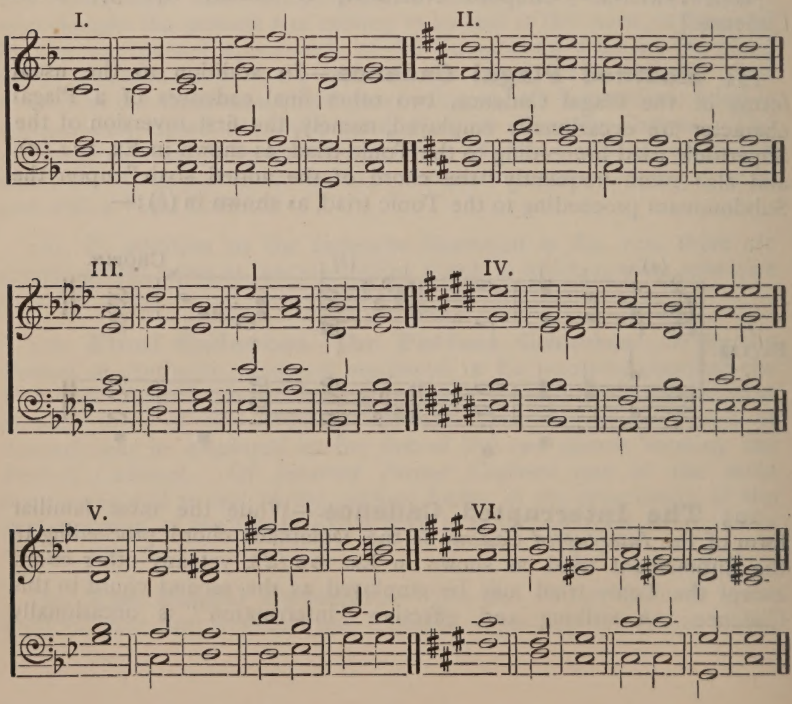
105. **The Interrupted Cadence.**—While the most familiar form of the *Interrupted Cadence* is the Dominant chord proceeding to the Submediant triad, as shown in Ex. 120 (*d*), yet any other chord except the Tonic triad may be employed as the second chord in this Cadence. A striking and effective "interruption" is occasionally

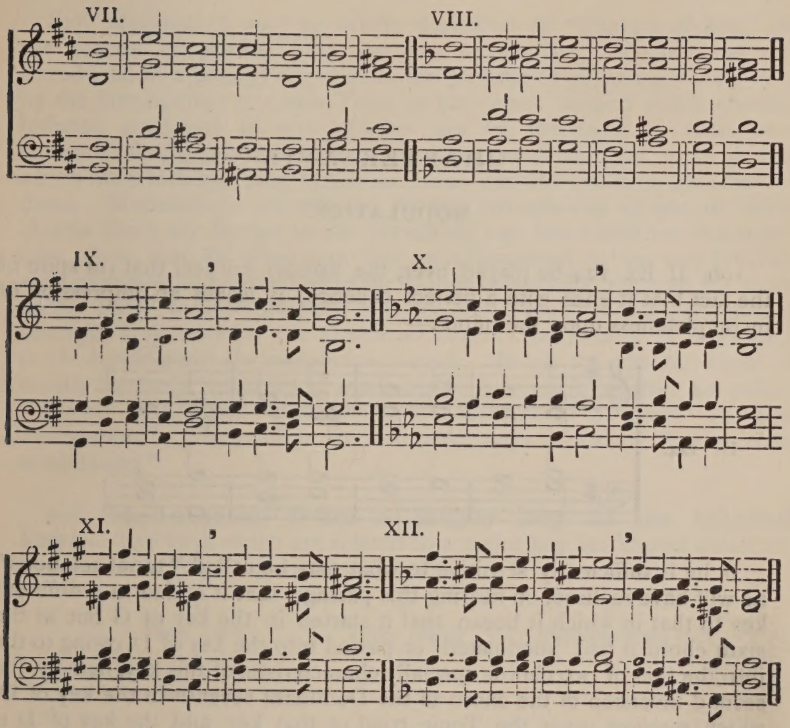
produced by the employment of some chromatic chord to effect a modulation, as shown below :—

Ex. 123.

In addition to the Middle Cadences already mentioned, another occasionally to be met with is formed by *a progression to the Subdominant triad*, as employed in Beethoven's Sonata, G minor, Op. 49, No. 1, fourth bar.

Dictation Exercises :—

*** In Exercises I to VIII the key chord, as given in the first bar, must be sounded before each cadence. These cadences may either be written down or merely described, by the pupil.



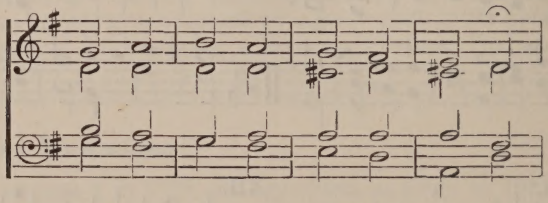

VII.
VIII.
IX.
X.
XI.
XII.

CHAPTER XVII.

MODULATION.

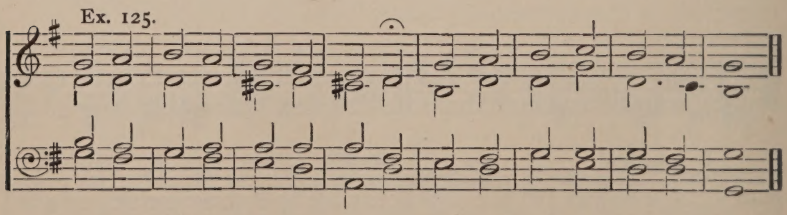
106. If Ex. 124 be played over, the listener will feel that (in spite of the fact that it ends with a perfect cadence) it leaves an impression of incompleteness upon the mind :—

Ex 124.



If he is sufficiently sensitive to what may be called "tonal relations" he will have realized, on hearing this passage, that it ended in a different key to that in which it began, that it started in the key of G but at the sixth chord it had "modulated" or passed into the key of D, owing to the introduction of two chords specially characteristic of this key, namely, the second inversion of the chord of the Dominant seventh in the key of D, which resolves upon the Tonic triad of that key, and the key of D is further emphasised by the next two chords forming a perfect cadence in that key. This short example illustrates the elementary but important fact, that for any passage or piece to produce a completely satisfactory and finished musical effect it must begin and end in the same key. Although it may pass through several keys during its progress, yet it must finally return to, and conclude in the key in which it started. In order to bring the above to a suitable termination, and give to the completed passage a satisfactory musical shape and properly balanced form, we must add to it at least an equal number of bars in a similar musical style which shall admit of being joined on to these, and which shall modulate back to and terminate in the key of G. The completed passage, which is the first line of a Choral by Schumann, is given in Ex. 125.

Ex. 125.



107. Modulation may be briefly described as "change of key," or the process of passing from one key to another. Modulations are introduced in a passage or piece for the purpose of imparting variety to it by the introduction of a new Tonic or key-centre around which chords, hitherto employed in one relation can be employed in some new relation, thereby producing new tonal effects, and also that some chords which have hitherto been unavailable may become available for employment. Modulations are effected by the introduction of one or more chords which are foreign to the prevailing key, but which are characteristic of, or lead to some new key, as is illustrated in the very familiar modulation—the modulation to the Dominant—in Ex. 125, and the most useful chord for this purpose, and the chord which is employed in this example, is *the chord of the Dominant seventh (root position or inversion) in the key to which the modulation is made.* In all the simpler kinds of music, the large majority of modulations are made to what are called "related keys," and modulation to such keys is called "natural modulation." Modulation to unrelated keys is called "extraneous modulation."

108. **Modulation from a Major key to its related keys.**—The keys which are related to a major key are shown below, in connection with the key of C major:—

G	C	F
Dom. (maj.)	Tonic (maj.)	Subdom. (maj.)
e	a	d
rel. min.	rel. min.	rel. min.

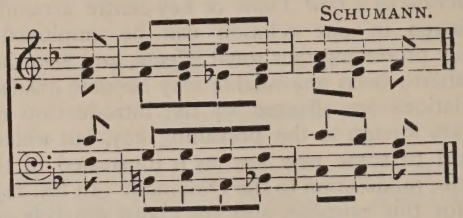
Modulation to the several major and minor keys which are related to a major key are not all equally familiar, and each, of course, has its own special musical character, modulations to some keys being much more frequent and natural than to others. Modulations to the Dominant are far more common than to any other key, and when the passage is short and there is only one change of key during its progress, the key of the Dominant is that which is almost invariably chosen as furnishing the most suitable and natural contrast with the Tonic. When a passage contains modulations to both Dominant and Subdominant, the modulation to the Dominant generally precedes that to the Subdominant, but beyond this there is no recognized order in which modulations to the several keys are introduced.

109. The limits of space, as well as the limits which it is necessary to impose upon the length of all kinds of dictation exercises, has made it imperative to select and construct exercises in which the various modulations are effected in the smallest possible number of chords, often when there is little more than a cadence into the new key. Such rapidly passing modulations are sometimes called "transitions," a transition being a modulation to a key which, apart from the modulating chords, is not further established. Ex. 126 is an example of transitions,

or transitory modulations through the keys of the Dominant and Subdominant :—

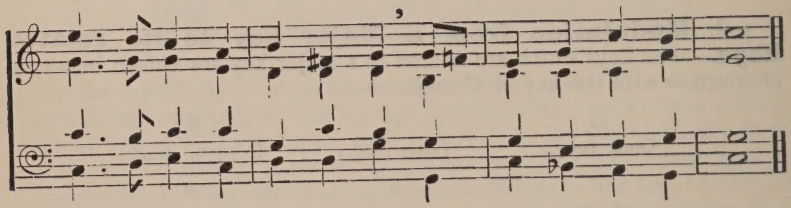
Ex. 126.

SCHUMANN.

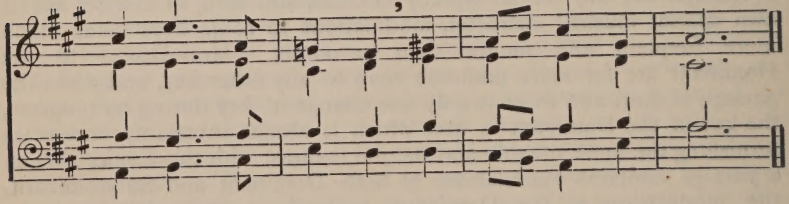


Dictation Exercises illustrating modulations from major keys to related keys :—

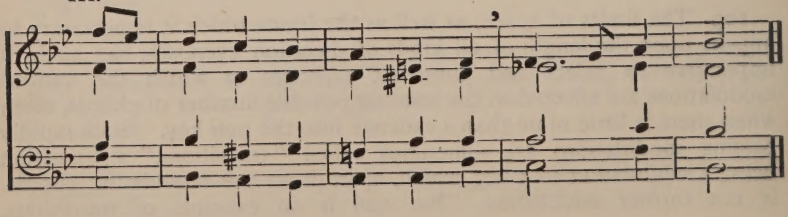
I.



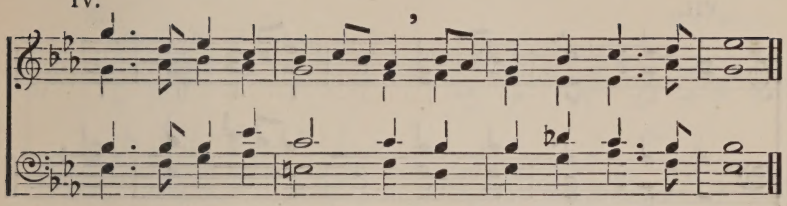
II.



III.



IV.



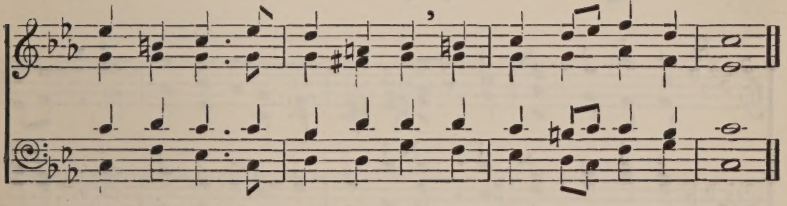
110. **Modulation from a Minor key to its related keys.**—The keys which are related to a minor key are shown below in connection with the key of C minor:—

g	c	f
Dom. (min.)	Tonic (min.)	Subdom. (min.)
B♭	E♭	A♭
rel. maj.	rel. maj.	rel. maj.

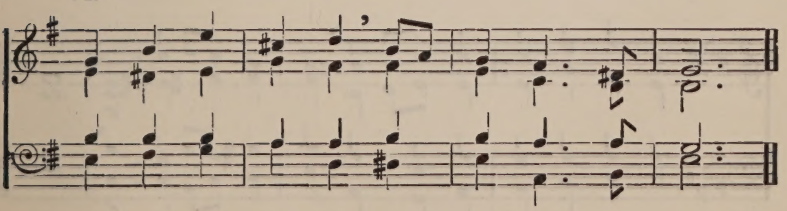
The most familiar modulation from a minor key is to its relative major. Modulations to the Dominant (minor key) are far less familiar in the minor key than the corresponding modulations in the major key. Modulations to the Subdominant (minor key) are very frequent in passages which contain more than one modulation.

Dictation Exercises illustrating modulations from minor keys to related keys:—

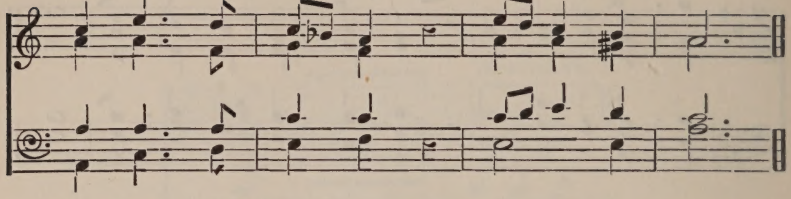
V.



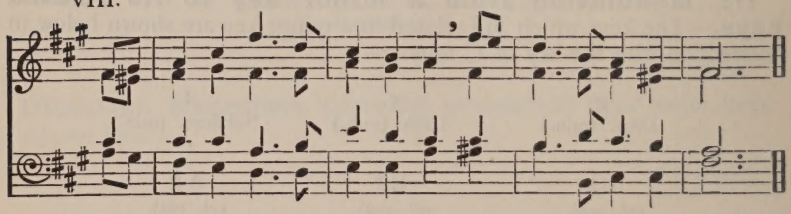
VI.



VII.

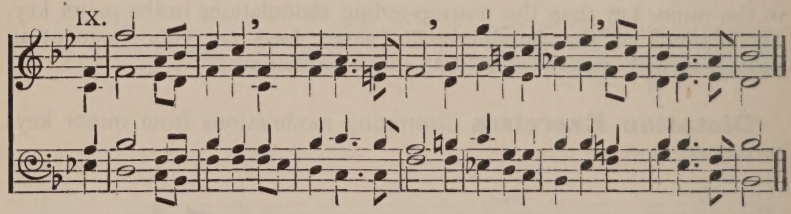


VIII.

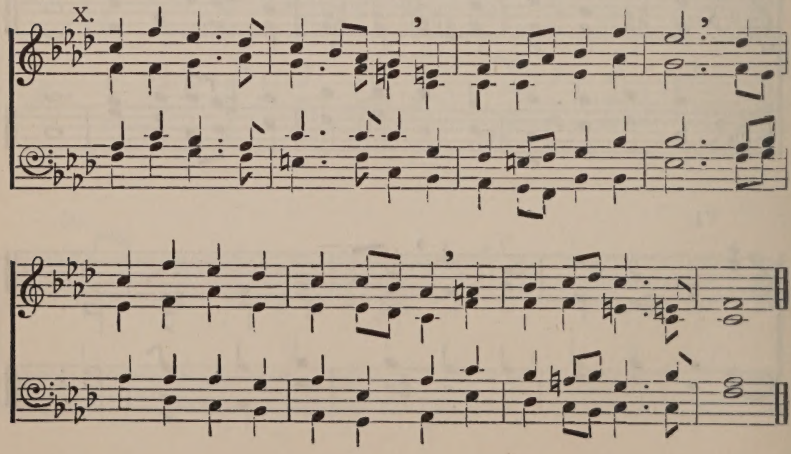


Dictation Exercises (upon modulation) in both major and minor keys:—

IX.

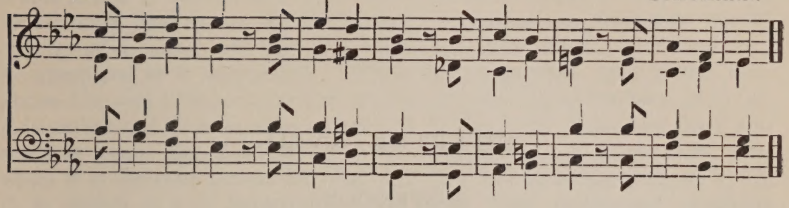


X.



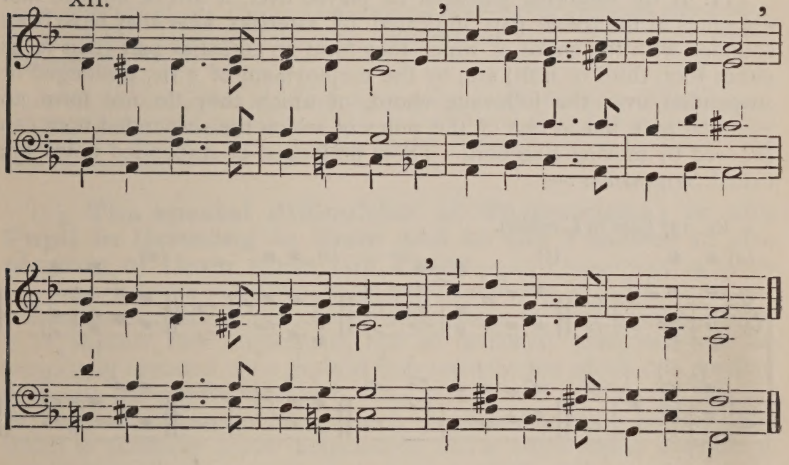
XI.

SCHUMANN.



XII.

SCHUMANN.

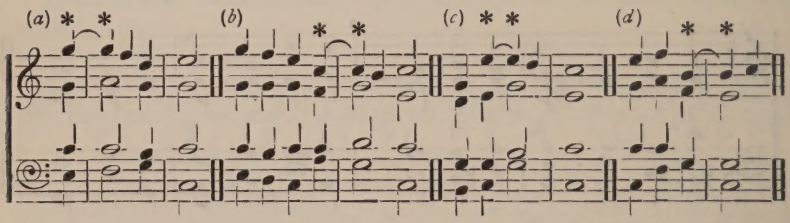


CHAPTER XVIII.

SUSPENSIONS.

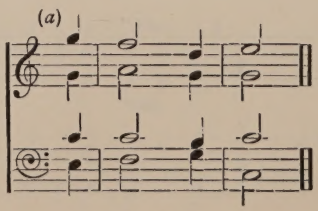
111. If the following passages be played over, it will be noticed that the notes in the treble part indicated by asterisks, after they have been sounded with the chord of which they form an essential part (that is, as either root, third or fifth) are, by the employment of a tie, prolonged or suspended over the following chord, of which they do not form an essential part, but to one of the notes of which the suspended note can proceed by moving a second. These prolonged or suspended notes are called *Suspensions* :—

Ex. 127 (also in C minor).



In order to illustrate in the clearest manner possible the nature of Suspensions, the above passages may be played first *with the Suspensions omitted* (see Ex. 127 (*a*), shown below), the pupil writing them down in this form. They should then be played *with the Suspensions*, the pupil altering what he has written down so as to include these. Any of the ear-exercises which follow may be dictated in a similar manner at the discretion of the teacher, although such a method should only be adopted when the pupil is unable to follow the exercise in its proper form :—

Ex. 127.



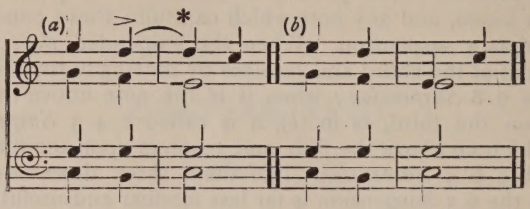
112. From a study of Ex. 127 a suspension may be described as *a note which is suspended or held over a chord of which it does not form an essential part but to one of the notes of which it can proceed by moving the step of a second*, and any note which can fulfil these conditions may be employed as a suspension. When the suspended note is the note above the root of the chord and resolves by moving to the root, as in (*a*), it is called a 9 8 *Suspension;* when it is the note above the third and resolves upon the third, as in (*b*), it is called a 4 3 *Suspension;* and when it is the note above the fifth and resolves upon the fifth, as in (*c*), it is called a 6 5 *Suspension.* Of these three downward resolving suspensions the 6 5 Suspension is far less familiar and useful than either of the other two. The only familiar upward resolving suspension is *the suspension of the Leading-note*, which resolves by rising to the Tonic, as in (*d*). Upward resolving suspensions are sometimes called *Retardations.*

[For further information regarding the preparation and resolution of Suspensions, and the changes which they undergo when the chord over which they are suspended is inverted, the student is referred to the chapter on Suspensions in the author's text book on Harmony.]

113. **The special difficulties of Suspensions; to the Pupil in listening to them and to the Teacher in the playing of them upon the Piano.**—As a suspension is in its very nature a note sustained while notes originally sounded with it (or at least some of them) proceed to other notes to form another chord, it is obvious that suspensions, like all sustained notes, can only be adequately rendered upon musical instruments upon which it is possible to sustain the various sounds in some regular and continuous manner. Of keyboard instruments the organ is therefore the most suitable upon which to musically render suspensions, and in any complex example of suspensions it is the only instrument upon which such an exercise can be satisfactorily dictated, so that the listener shall be able to hear the suspended notes in sounds equal in strength to the other notes of the chord with which they are sounded. The occasions, however, when it is possible to use an organ for such purposes are rare, and in the very large majority of cases a piano is the only instrument available. As upon a piano the sound of a note rapidly diminishes in volume immediately after it has been struck, the listening to and unravelling of a progression in which suspensions occur, requires both a quick and sensitive ear, and also considerable power of concentration, while the rendering of suspensions upon a piano, so that the real nature of the progression shall be evident to the listener, demands on the part of the teacher both care and study. The suspended note after it has been struck rapidly decreases in tone, and unless the notes of the chord over which the note is suspended are sounded softer than the notes of the previous chord (so that the sustained note, in spite of the diminution of its tone, can still be heard sounding with them) the effect of the suspension will disappear. Thus in Ex. 128 (*a*) unless there is some reasonable proportion between the volume of the sustained sound of the second

D (*) and the sound of the three notes struck beneath it, so that the D can still be heard softly sounding above them, the effect of the suspension will be obliterated and the passage will really sound as in (*b*) :—

Ex. 128.



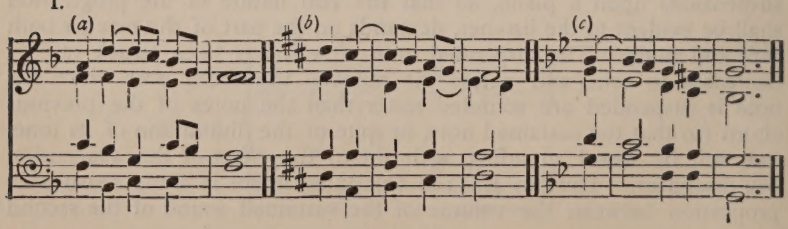
It will help the teacher to give a correct rendering of suspensions if he bears in mind that a suspension is almost invariably tied from an unaccented beat over an accented beat, and the accent which properly belongs to the suspended note should therefore be anticipated, as in a syncopation, which in fact the treble part of (*a*) really is, and a slight additional tone given to the suspended note when it is first sounded. The care and discretion with which a suspension must be played must not, however, cease at the suspension itself but must extend to the *resolution*, because as the suspended note has rapidly diminished in sound, the note of resolution which immediately follows must be sounded so that in amount of tone it shall approximate in some degree to the diminished tone of the suspension. In other words, both the notes which accompany the suspension and also the note of resolution must, in volume of tone, be heard in suitable relation to the diminished tone of the suspended note, and in the playing of suspensions, unless these details are most carefully attended to, it will be impossible for the listener to follow the progress of the various parts with sufficient accuracy to enable him to write them down from dictation. As considerations of a like nature apply in the playing of contrapuntal music, this matter is further discussed in Part II.

Dictation Exercises:—

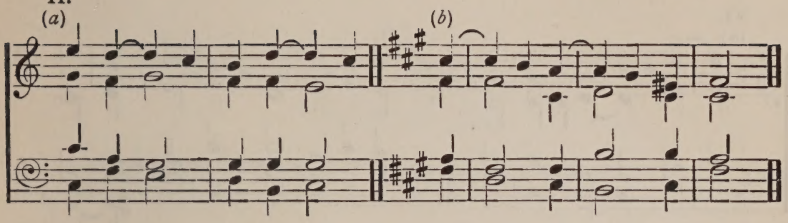
*** *Each Teacher must decide for himself how far the method of dictation suggested in the last part of par.* 111 *may be advantageously employed in connection with the following exercises, and how many chords of any exercise should be played before the pupil begins to write them down.*

Upon the 9 8 Suspension and its inversions :—

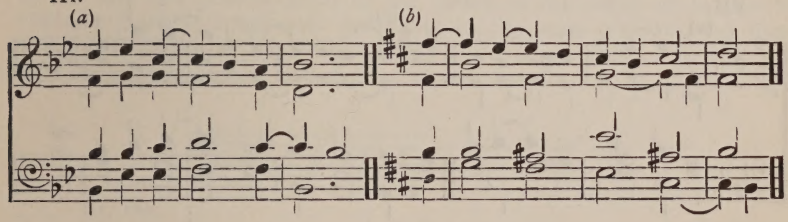
I.



II.

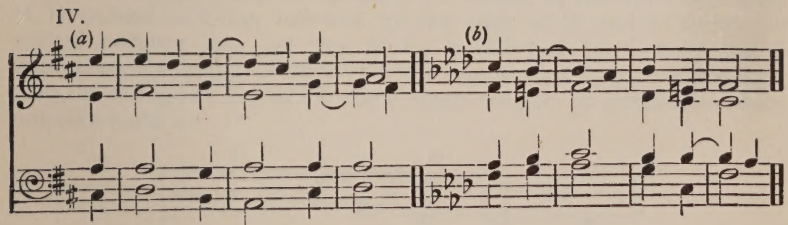


III.

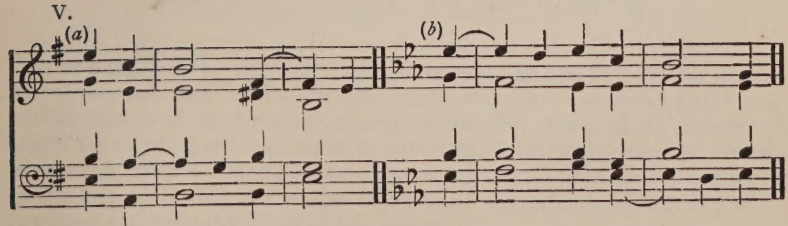


Upon the 4 3 Suspension and its inversions :—

IV.

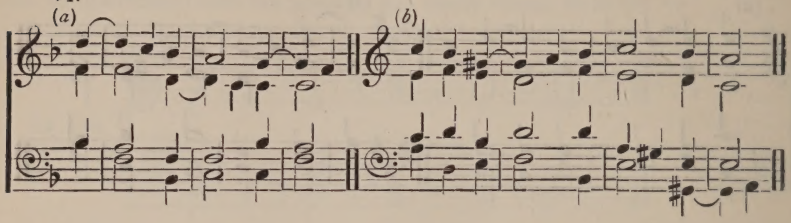


V.

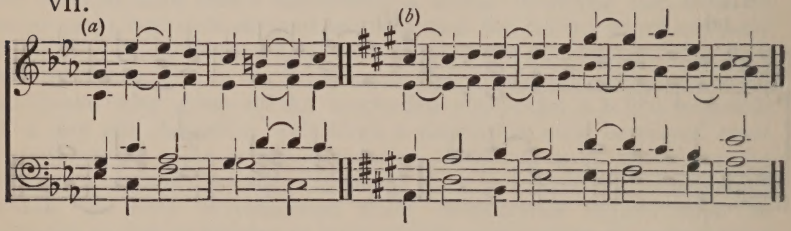


Upon the 6 5 Suspension :— Upon the suspended Leading-note :—

VI.



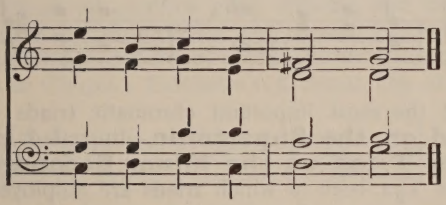
Upon Double and Triple Suspensions :—

VII.

CHAPTER XIX.

CHROMATIC HARMONY.—THE CHROMATIC TRIADS.

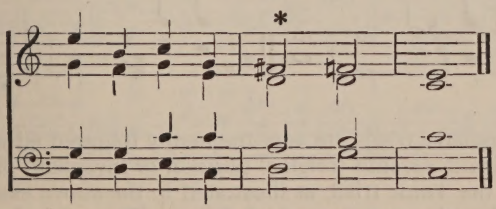
114. If Ex. 129 be played over, the listener will realise that it begins in one key and ends in another, that it begins in the key of C and ends in the key of G, the dominant of C, and this change of key is effected by the last two chords, partly by the nature of the chord on D (which contains F sharp, a note not belonging to the scale of C, but to that of G) and partly by the nature of the chord which follows, and which with the major triad on D makes a cadence into the key of G :—

Ex. 129.



If, however, the above progression be altered so that the major triad of D instead of being followed by the triad of G, and so forming a perfect cadence into the key of G, is followed by a chord which unmistakeably thrusts us back into the key of C, as shown in Ex. 130, then the change of key which the F sharp seemed to foreshadow does not take place :—

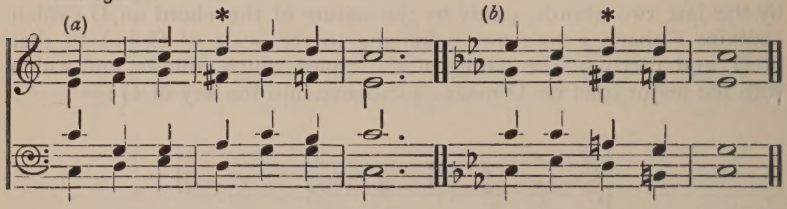
Ex. 130.



It is certain that both the first four and the last two chords of the above are definitely in the key of C (play them over that the pupil may realise this), and the one remaining chord, the chord of D, cannot of itself define the key of G, because two is the smallest number of chords which can effect a change of key, the whole of the passage is therefore in the key of C, and this major triad on D in a passage in the key of C is called a *Chromatic chord* in the key of C.

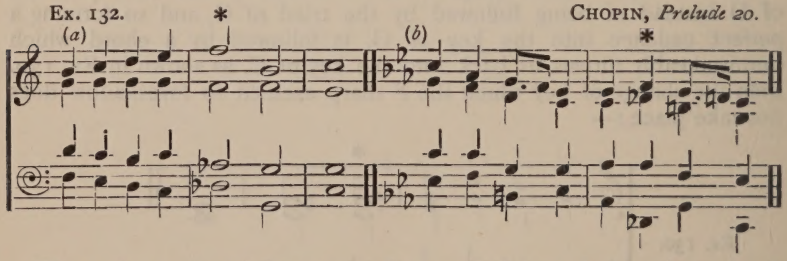
115. After this preliminary explanation we may proceed to describe a chromatic chord as "a chord, one or more of the essential notes of which do not belong to the diatonic scale of the prevailing key, but which chord does not effect a change of key." As was heard when Ex. 130 was played over, the musical effect of a chromatic chord is to destroy, or at least to disturb, the prevailing tonality, and to lead towards that key in which the chromatic chord is a diatonic chord. A chromatic chord is therefore always followed by a chord which either tends to definitely establish the preceding key, as in Ex. 130 and Ex. 131 (*b*), or else to neutralize the effect of the chromatic chord, leaving it to subsequent chords to more clearly define the tonality, as in Ex. 131 (*a*):—

Ex. 131.



116. Two of the most important chromatic triads are:—(i) **the Major Triad on the Supertonic,** illustrated in Ex. 131, and (ii) **the Major Triad on the Minor Second of the Key,** illustrated in Ex. 132, both of which triads are employed in the major key and the minor key, although the latter triad is more frequently employed in the minor key than in the major key.

Ex. 132. CHOPIN, *Prelude 20.*



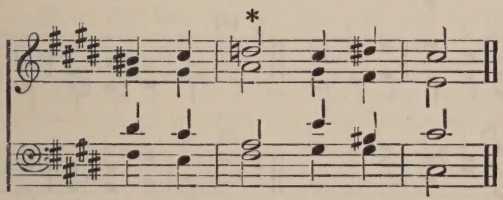
These chromatic triads are very frequently followed either by a chord of the Dominant seventh (original position or inversion) or by a second inversion of the Tonic triad, as illustrated in the above examples and in the various dictation exercises which follow. The musical effect of these two forms of resolution is, however, quite different, thus, when either of these chromatic chords is immediately followed by a chord of the Dominant seventh or an inversion (see Ex. 131 (*b*)), which chord would definitely contradict the chromatic note in the previous chord, the effect is one of being suddenly thrust back into the original key, while if the chromatic chord is followed by the second inversion of the Tonic chord (see Ex. 131 (*a*)) which, for the moment leaves the

chromatic note uncontradicted, the effect is one of being gradually led back to the original key. When one chromatic chord resolves upon another chromatic chord, as will be illustrated later on (see Ex. 135 (*b*)), the effect is that of a continued struggle which remains undecided until some more definite form of resolution is reached.

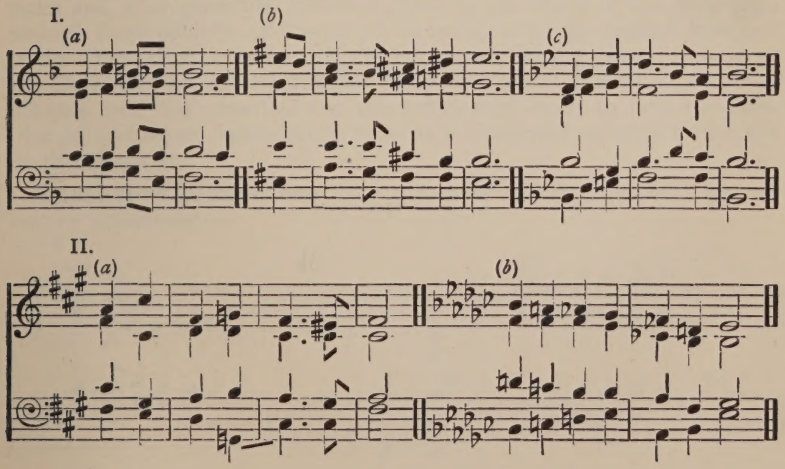
117. The major triad upon the Supertonic is specially important because upon the Supertonic is built a most valuable series of chromatic discords which, in their original position, bring into employment the notes of this triad. The chromatic discords formed upon the Supertonic rank next to the Dominant discords in familiarity and importance, and are more frequently employed than the chromatic triad upon this note.

118. The major triad upon the minor second of the key is far more frequently met with in its first inversion than in its original position, while its second inversion is of rare occurrence. In its first inversion it is known as "the chord of the Neapolitan sixth," and it has been frequently employed to produce most striking and beautiful musical effects. [See bars 33 and 128 *et seq.* of the Finale of Beethoven's Sonata in C♯ minor, Op. 27, No. 2, of which the harmonic framework is given below; also Chopin's Polonaise C♯ minor, Op. 26, bar 11.]

Ex. 133.



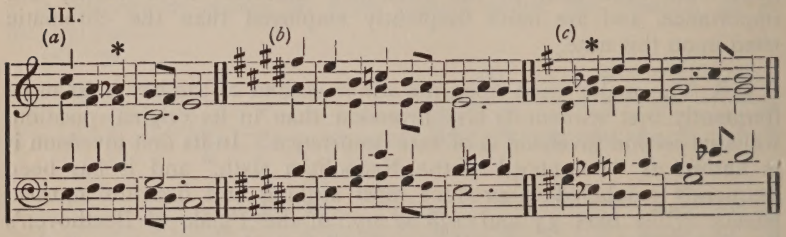
Dictation Exercises:—



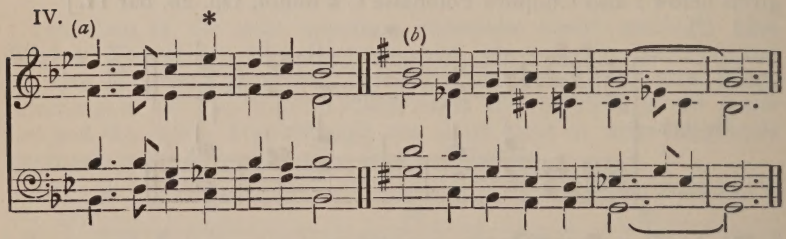
119. In addition to the above-mentioned chromatic triads, the diatonic triads of the minor key are also employed as chromatic triads in the major key. The most familiar of these, when so employed, are *the minor triad on the Subdominant*, illustrated below in Ex. III (*a*) and (*b*) [see also Chopin's Nocturne E♭, Op. 9, No. 2, bar 10], *the major triad upon the minor sixth of the key*, illustrated in Ex. III (*c*), and *the diminished triad upon the Supertonic*, illustrated in Ex. IV (*a*):—

Dictation Exercises:—

III.



IV.

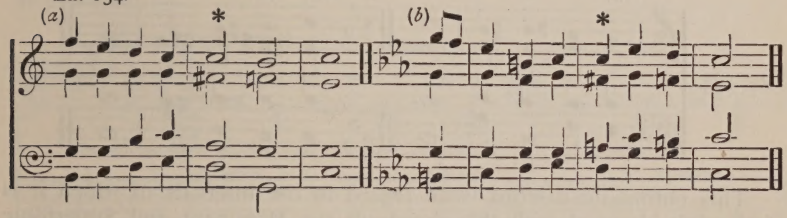


CHAPTER XX.

CHROMATIC CHORDS OF THE SEVENTH.

120. If Ex. 134 (*a*) and (*b*) be played over they will introduce to the listener, at the chords indicated, one of the most familiar and valuable chromatic discords—THE CHROMATIC DISCORD OF THE SUPERTONIC SEVENTH :—

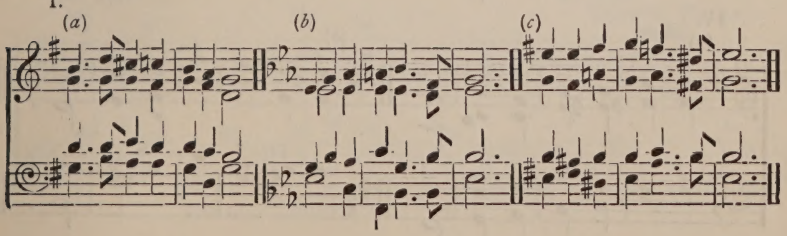
Ex. 134.



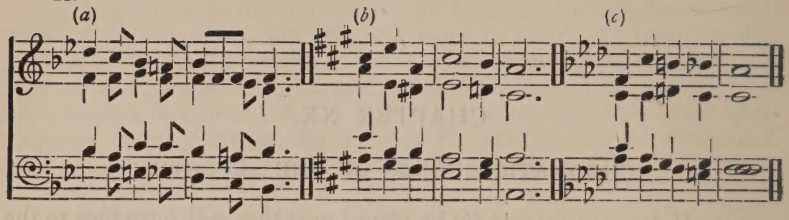
What was said in the last part of par. 114 and in par. 115 with reference to the musical effect of the chromatic triad upon this note applies with still greater force to this discord, which is even more characteristic of the key of G than the triad upon the same note. An examination of the intervals of which this chord is formed will show that in this respect it is identical with the chord of the Dominant seventh, having a major third (the chromatic note), a perfect fifth, and a minor seventh from the Supertonic—the root of the chord. The resolution of this discord is very similiar to that of the chromatic triad upon the same note, and it is generally followed either by the chord of the Dominant seventh (root position or inversion), as in (*a*), or by the second inversion of the Tonic triad, as in (*b*). If the Supertonic seventh were followed by the Dominant *triad*, a modulation to the key of the Dominant would be effected and the chord of the seventh would cease to be a *chromatic* discord and would immediately become a Dominant seventh in the key of the Dominant.

Dictation Exercises upon the chord of the Supertonic seventh and its inversions :—

I.

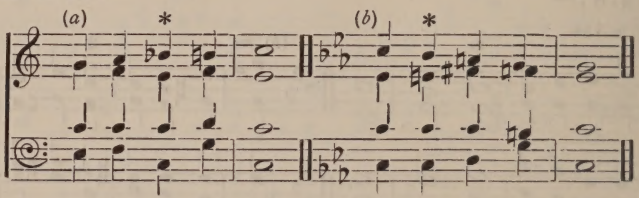


II.



121. If Ex. 135 (*a*) and (*b*) be played over, they will introduce to the listener, at the chords indicated, THE CHROMATIC DISCORD OF THE TONIC SEVENTH:—

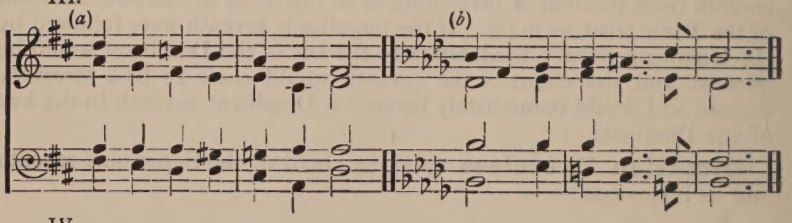
Ex. 135.



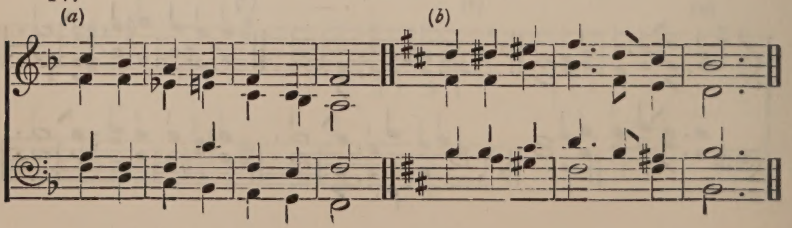
This chromatic discord, with regard to the intervals of which it is formed, is identical with the chords of the Dominant and Supertonic sevenths, but it is far less familiar than either of these. It generally resolves upon either a Dominant discord, as in (*a*), or a chromatic supertonic discord, as in (*b*). It must not resolve upon the Subdominant triad because this would effect a modulation to the key of the Subdominant and the chord of the seventh would cease to be a *chromatic* discord, and would immediately become a Dominant seventh in the key of the Subdominant.

Dictation Exercises upon the chord of the Tonic seventh and its inversions:—

III.



IV.

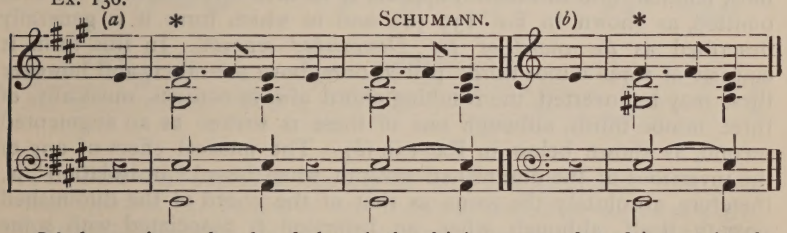


CHAPTER XXI.

THE CHORDS OF THE NINTH.

122. If Ex. 136 (*a*) and (*b*) be played over, they will introduce to the listener, at the chords indicated, two chords on the Dominant, of a kind which has not previously been heard, namely, chords of the ninth. These chords are called CHORDS OF THE DOMINANT NINTH, that in (*a*) being a chord of the *major ninth*, and that in (*b*) a chord of the *minor ninth* :—

Ex. 136.



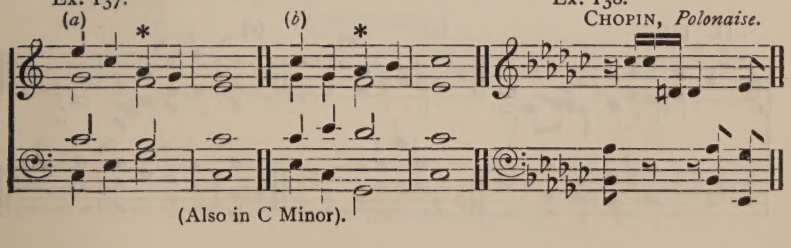
Of the various chords of the ninth which are employed in music, the most familiar are the chords of the Dominant ninth, and they are formed of the chord of the Dominant seventh to which is added either a major ninth from the root, as in (*a*), or a minor ninth, as in (*b*). The chord of the major ninth in the major key, and the chord of the minor ninth in the minor key are both diatonic chords, but when the minor ninth is employed in the major key, as is frequently the case, it becomes a chromatic chord.

123. The ninth resolves in various ways, but the following are the most familiar :—

(i). By falling a second to the root of the same chord, as shown in Ex. 137 (*a*).

(ii). By rising a second to the third of the same chord, as shown in (*b*), or falling a diminished seventh, as shown in Ex. 138.

(iii). By falling a second to the fifth of the Tonic chord, as shown in Ex. 136 (*a*) and (*b*).

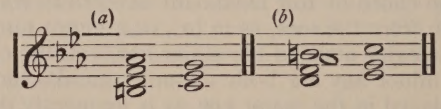
Ex. 137.

Ex. 138.

CHOPIN, *Polonaise.*

124. *The chord of the major ninth in its original position* with the ninth in the highest part, possesses a full and rich musical character, which is revealed in no uncertain manner, when the ninth resolves directly uponthe fifth of the Tonic triad, as shown in Ex. 136 (*a*). The musical character of the *inversions* of this chord, of which there are four, vary very much according to the relative position of the ninth itself, some forms of the chord being distinctly "hard" in character, while others are rich and beautiful, as will be heard in the subsequent Dictation Exercises.

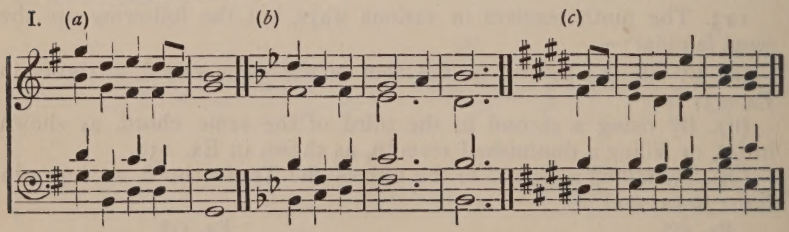
125. *The chord of the minor ninth in its original position* possesses a more harsh and dissonant musical character than the major ninth, as will be readily perceived by a comparison of Ex. 136 (*a*) and (*b*). In its original position it is not, however, a very familiar chord. The most familiar form in which it appears is its first inversion with the root omitted, as shown in Ex. 139 (*a*), and in which form it is generally described as *the chord of the Diminished seventh.* In this form it consists of three minor thirds placed one above the other, and however these may be inverted, the resulting chord always consists, musically, of three minor thirds, although one of these is written as an augmented second, as shown below in Ex. 139 (*b*). The musical effect of any of the inversions of the diminished seventh when heard "in isolation" is, therefore, absolutely the same as that of the chord of the diminished seventh itself, although when an inversion is associated with some suitable form of resolution, the absolute identity of the musical effect disappears:—

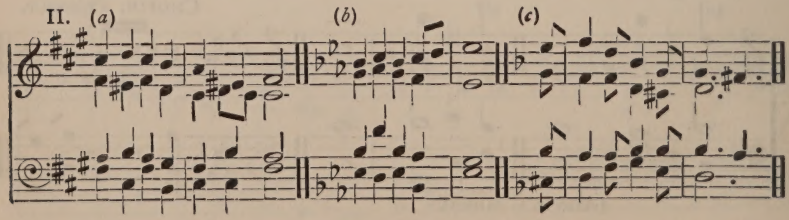
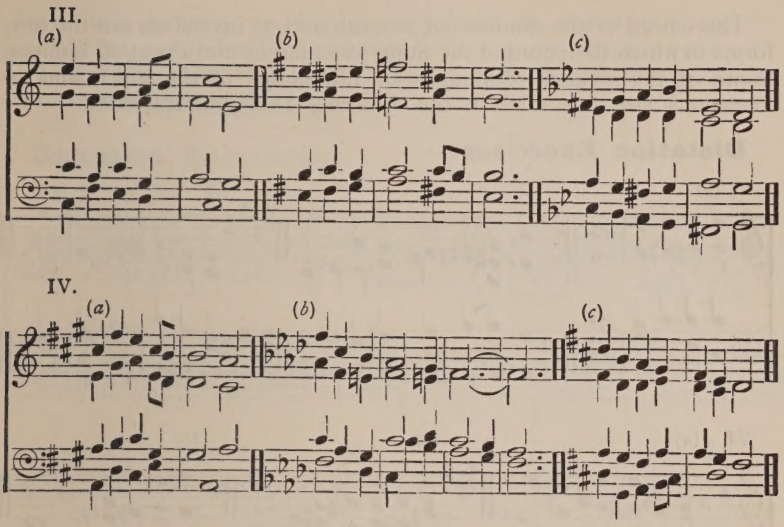
Ex. 139.



Dictation Exercises:—

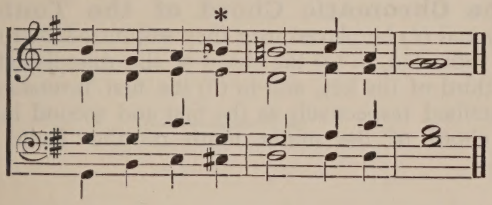
I.



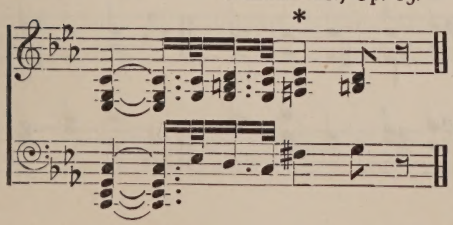
II.



126. **The Chromatic Chord of the Supertonic Ninth.**—If Exs. 140 and 141 be played over they will introduce to the listener, at the chords indicated, the *first inversion* of the chromatic chord of the minor ninth upon the Supertonic, or, as it is sometimes described, the chord of the diminished seventh upon the augmented fourth of the key :—

Ex. 140.

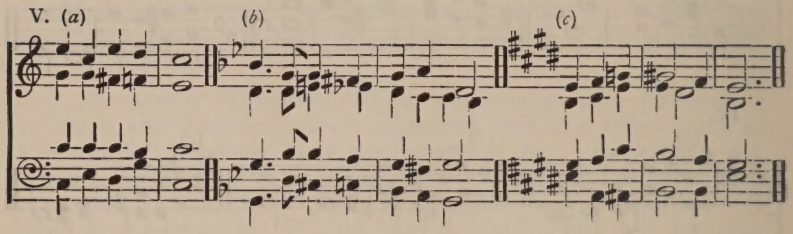
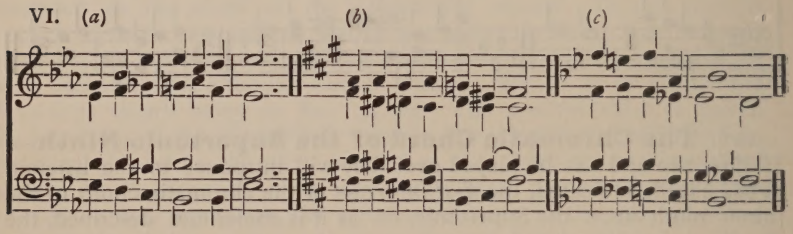


Ex. 141.

BEETHOVEN, Op. 13.

[ILLUSTRATIONS.—Chopin's Polonaise in C♯ minor, Op. 26, bars 3 and 4, also first four bars of the Andante from Beethoven's Sonata in G., Op. 14, No. 2, from which Ex. 140 is adapted.]

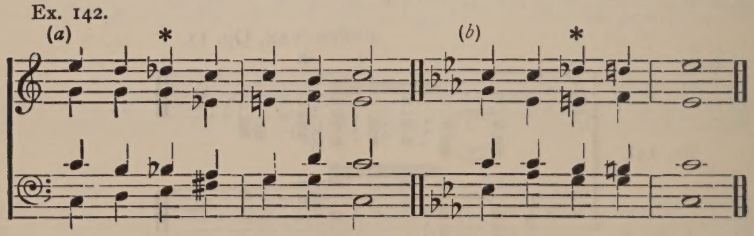
This chord of the diminished seventh and its inversions are the only forms in which the chord of the Supertonic minor ninth is at all familiar. Some of the simpler resolutions of this chord of the ninth and its inversions are illustrated in the following Dictation Exercises.

Dictation Exercises:—



127. **The Chromatic Chord of the Tonic Ninth.**—If Ex. 142 (*a*) and (*b*) be played over they will introduce to the listener, at the chords indicated, in (*a*) the chord of the diminished seventh upon the major third of the key, and in (*b*) the first inversion of this, which may be described respectively as the first and second inversions of the chromatic chord of the minor ninth on the Tonic with the root omitted:—

Ex. 142.

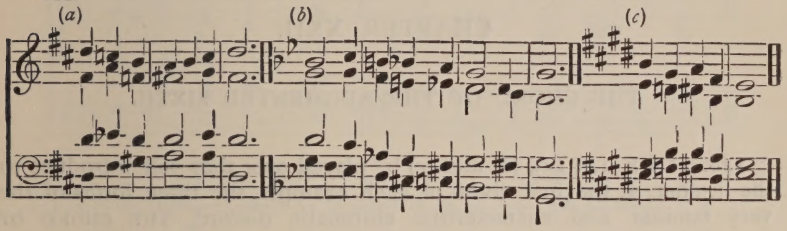


The chord of the Tonic ninth is by far the least familiar of these three chords of the ninth, and it is rarely met with except in the form of a diminished seventh, or an inversion of it. Some of its resolutions are illustrated in the following Dictation Exercises. Progressions of

diminished sevenths moving in semitones, as shown in Dictation Ex. VII (*b*), and derived, respectively, from the three fundamental roots of a key (the Dominant, the Supertonic and the Tonic) are not unfamiliar in instrumental music.

Dictation Exercises:—

VII.

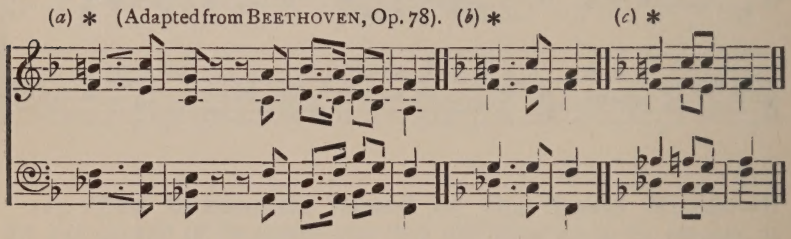


CHAPTER XXII.

THE CHORD OF THE AUGMENTED SIXTH.

128. If Ex. 143 (*a*), (*b*) and (*c*) be played over they will introduce to the listener, at the first chord of each example, the three forms of the very familiar and characteristic chromatic discord, THE CHORD OF THE AUGMENTED SIXTH:—

Ex. 143.

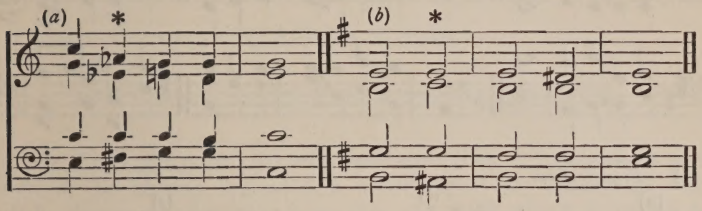


From the above it will be seen that this discord, both in the manner in which it is built up, in its progression, and in its musical character and effect, differs in a marked degree from the discords which have already been introduced. The three forms of this chord are called respectively the Italian, the French, and the German, in the order in which they are introduced in (*a*), (*b*) and (*c*), their characteristic interval being the augmented sixth, which generally (and naturally) resolves by each note moving a semitone outwards, to form an octave. The most familiar position of this discord is upon the minor sixth of the key, as in the above examples, and in this position it is frequently to be met with in both major and minor keys. It is also occasionally employed upon the minor second of the key. When formed upon the minor sixth of the key, it almost invariably resolves either upon a Dominant chord (triad or discord), as in Ex. 143 (*a*), or upon the second inversion of the Tonic triad, as in (*c*), and as illustrated in the various Dictation Exercises.

129. Inverted forms of this chord are rarely employed, the only one which is at all familiar is the last inversion of the German sixth, shown in Ex. 144. This inversion possesses a striking and strongly marked

musical character, which is very largely due to the presence of the diminished third (the inversion of the Augmented sixth), and the nature of its resolution :—

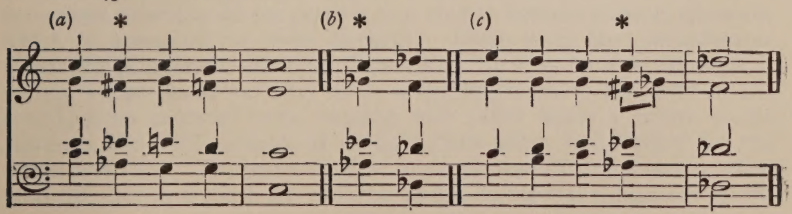
Ex. 144. (Adapted from CHOPIN, *Prelude 4.*)



[ILLUSTRATION.—Chopin's Nocturne in B, Op. 32, Coda].

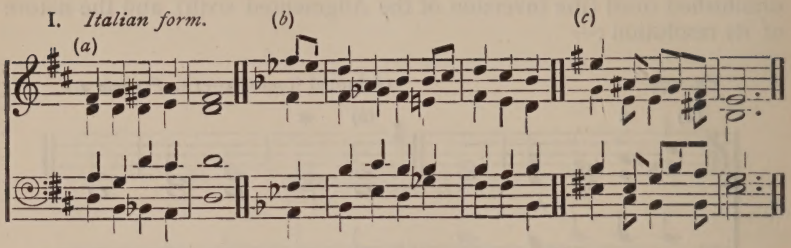
130. The interval of the augmented sixth, sounded "in isolation" upon a keyboard instrument, and considered apart from its notation, is, as we showed in par. 48, identical with the interval of the minor seventh, and the German form of the chord of the augmented sixth, sounded "in isolation," is identical in sound with the chord of the Dominant seventh, as shown in Ex. 145 (*a*) and (*b*), and likewise with the chromatic chords of the Supertonic and Tonic sevenths. The Italian form of the chord of the augmented sixth having a third but no fifth is identical with these same chords of the seventh but with the fifth omitted. The nature of these two forms of the chord—the German and the Italian—therefore can only be determined by the listener when they are followed by some characteristic form of resolution, as, heard "in isolation," these combinations of sounds would in the majority of instances be more readily recognised and described as chords of the seventh. The possession of this dual character, that of the augmented sixth and of the minor seventh, by the same combination of sounds, is frequently revealed when this chord is employed to effect a modulation, one character being suggested by the manner in which the chord is led up to or approached, and the other character suggested by the manner in which the chord is quitted, as is illustrated in (*c*) :—

Ex. 145.

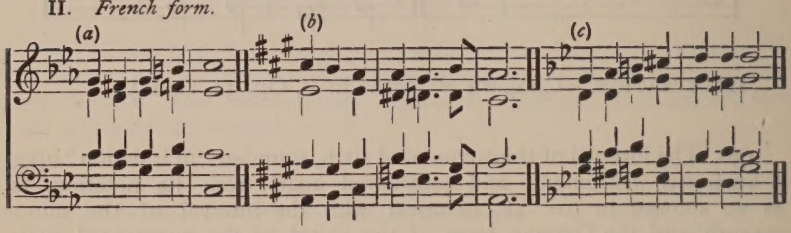


Dictation Exercises:—

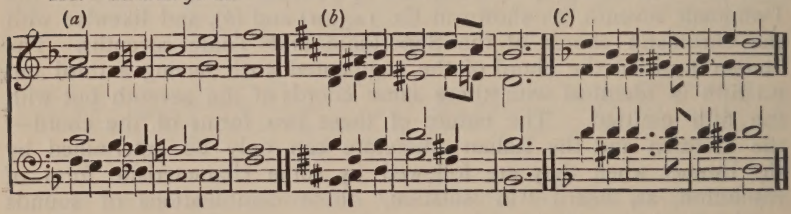
I. *Italian form.*



II. *French form.*



III. *German form.*

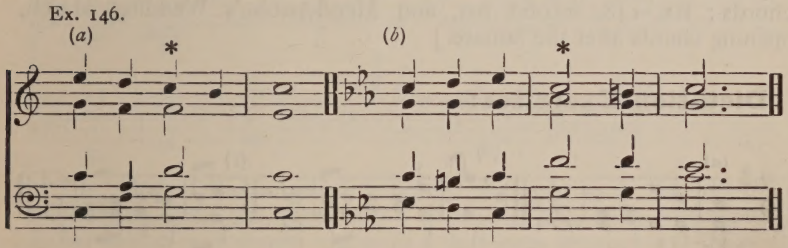


CHAPTER XXIII.

THE CHORD OF THE DOMINANT ELEVENTH.

131. If Ex. 146 (*a*) and (*b*) be played over they will introduce to the listener, at the chords indicated, a chord upon the Dominant which includes a note an eleventh from the root, and which is called THE CHORD OF THE DOMINANT ELEVENTH :—

Ex. 146.



[ILLUSTRATION.—Schumann's Novellette, No. 8, Finale—first two and last two chords.]

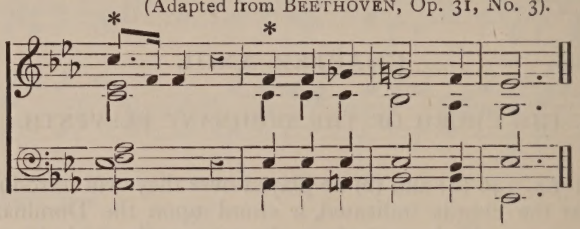
The chord of the eleventh is rarely employed upon any other note of the scale than the Dominant. It consists of the eleventh (which may be either an eleventh or a perfect fourth) above the root, in addition to a selection of some of the other notes of the chord of the ninth, and it is employed in both major and minor keys. The only familiar form of resolution is for the eleventh to fall a second to the third of the same root, as shown above, but occasionally it rises a second to the fifth of the same chord or remains stationary to become a note of another chord.

132. The chord of the eleventh, except in its root position, and in the inversion illustrated below, is not a very characteristic chord, and its inversions generally do not possess that clearly defined musical character which is possessed by most discords. There is, in fact, considerable difference of opinion amongst theorists as to whether the eleventh is merely an accented auxiliary note or appoggiatura to the third of the chord, or an essential note forming with other notes a chord of the eleventh, and both schools of thought have some justification for the views they hold. The most familiar inverted form of this chord is, when both the root and third are omitted and it appears as a diatonic chord

of the seventh upon the Supertonic, or an inversion of this. The first inversion of this seventh, which is illustrated in Ex. 147, is very frequently employed, and is known as *the chord of the added sixth.*

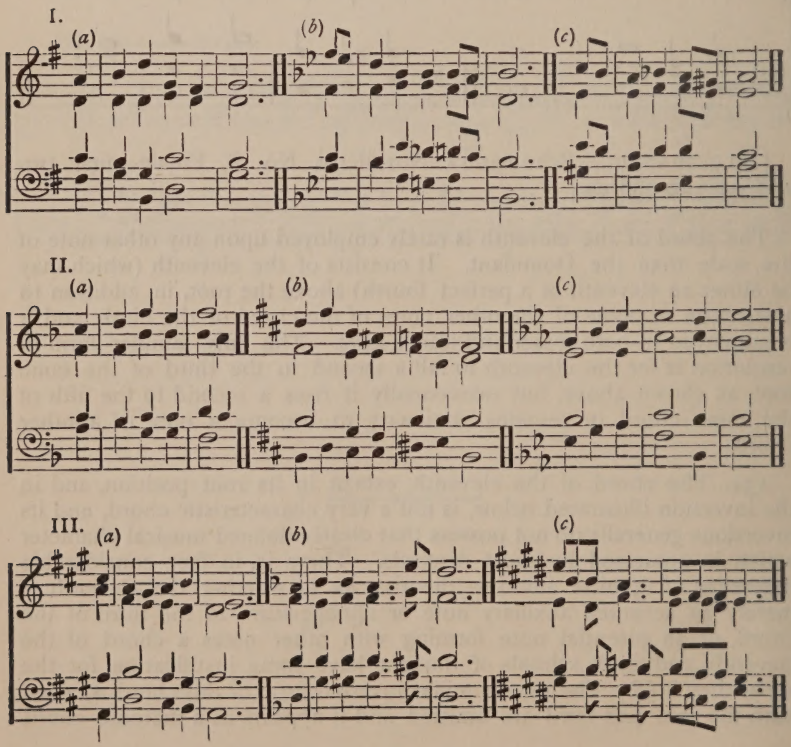
Ex. 147.

(Adapted from BEETHOVEN, Op. 31, No. 3).



[ILLUSTRATIONS:—Schumann's Intermezzo, Op. 4, No. 4, opening chords; Ex. 148, second bar, and Mendelssohn's Wedding March, opening chords after the fanfare.]

Dictation Exercises:—

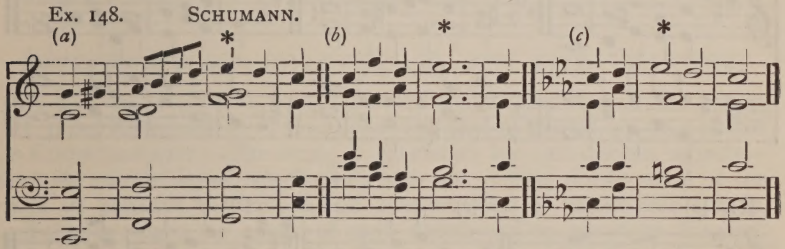


CHAPTER XXIV.

THE CHORD OF THE DOMINANT THIRTEENTH.

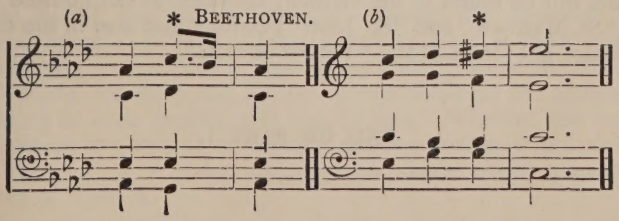
133. If Ex. 148 (*a*), (*b*) and (*c*) be played over they will introduce to the listener, at the chords indicated, one of the most characteristic and beautiful of modern discords, THE CHORD OF THE DOMINANT THIRTEENTH :—

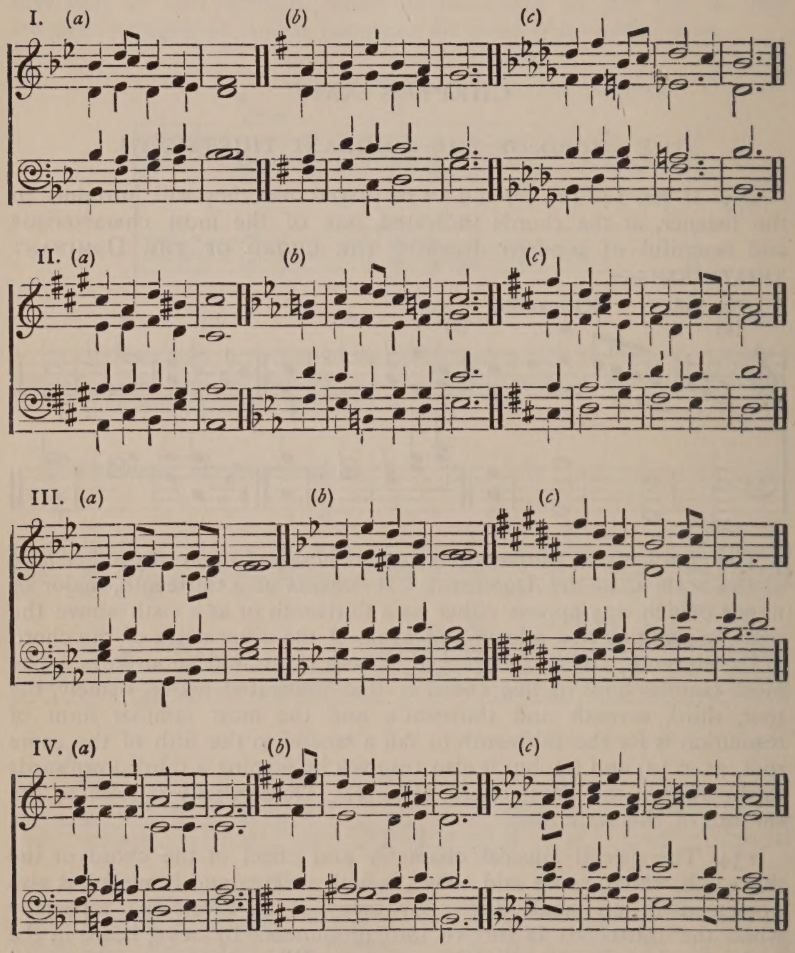
Ex. 148. SCHUMANN.



The chord of the thirteenth is rarely employed upon any other note of the scale than the Dominant. It consists of a thirteenth, major or minor (which may appear either as a thirteenth or as a sixth above the root), in addition to a selection of some of the other notes of the chord of the eleventh, and it is employed in both major and minor keys. The most familiar form of this chord is that illustrated above, namely, the root, third, seventh and thirteenth, and the most familiar form of resolution is for the thirteenth to fall a second to the fifth of the same root, as in (*a*) and (*c*), but it also resolves by leaping a third downwards to the root of the Tonic chord, as in (*b*). Occasionally it rises to the seventh of the same root.

134. The special musical character and effect of the chord of the thirteenth, which, as we said above, is both striking and beautiful, is also possessed in no small degree by many of its inversions, especially when the thirteenth is thrown into prominence by being heard in the highest part, as illustrated in Ex. 149 (*a*). When the minor thirteenth is employed in the major key it is sometimes written as an Augmented fifth, as shown in (*b*) :—

Ex. 149.

Dictation Exercises:—



*** For longer and more difficult harmonic dictation exercises, ample materials will be found in the German chorales, as harmonised by Bach in his "St. Matthew" and "St. John" Passions, and also in the collection of chorales published in the "Peters' edition."

END OF PART I.

PART II.

CONTRAPUNTAL EAR-TRAINING.

INTRODUCTORY CHAPTER (B).—TO THE TEACHER.

I. THE RELATION OF CONTRAPUNTAL EAR-TRAINING TO THE STUDY OF COUNTERPOINT.—The study of HARMONY has two distinct aspects—*first, the musical aspect*, which deals with the training of the mind of the pupil to perceive the nature and musical effect of the various chords, and also to retain the sound of each chord and to associate this both with its name and its notational signs; and, *second, the theoretical aspect*, which brings to the knowledge of the pupil those rules and principles which refer to the formation and progression of chords. In like manner the study of COUNTERPOINT has two corresponding aspects—*first, the musical aspect*, which deals with the training of the mind to observe, to remember, and eventually to mentally conceive combinations of two or more melodies; and, *second, the theoretical aspect*, which brings to the knowledge of the pupil those rules and principles upon which such melodies may be constructed and combined. The parallelism, however, does not stop here, for as in the study of Harmony, if it is to possess real musical value, both aspects of the study must be pursued side by side, that is, a knowledge of the formation and progression of chords *must* be accompanied by a knowledge of the musical effect of such chords and progressions, so, in the study of Counterpoint, facility in the construction and combination of melodies upon paper, possesses no real *musical value* unless the pupil is also able to build up in his mind, at least to some extent, the musical effect of the combination of melodies he is constructing. In other words, the teaching of Counterpoint in the non-musical manner in which it is frequently taught, and the working of contrapuntal exercises in the mechanical manner in which they are so frequently worked, makes no appeal whatever to the musical powers and sensibilities of the individual, and such study, therefore, can possess no real value for the development and training of such powers and sensibilities. Whether the fact that these exercises are written in *musical notation* makes them, therefore, *musical exercises*, is a point upon which there would probably be differences of opinion.

II. While in recent years some few text books upon Harmony have recognised the dual character of this study, and drawn attention to the fact that the most important part—the vital and life-giving part—of its study is the gaining of a knowledge of the sound of the various chords, yet, so far as our knowledge extends, no text book upon Counterpoint has ever referred to this two-fold aspect of the study of Counterpoint, or drawn attention to the fact that the training and development of the powers of observation, of memory and of thought in connection with the material of Counterpoint—so that the pupil can build up in his mind the musical effect of the combination of melodies which he is constructing upon paper—is just as vital to the study of Counterpoint, if this study is to possess real musical and educational value, as the training of the corresponding mental powers in connection with the material of Harmony, is to the study of Harmony. The relation which Contrapuntal Ear-training bears to the study of Counterpoint, corresponds with that which Harmonic Ear-training bears to the study of Harmony, that is, it is the real musical foundation upon which all genuine *musical* contrapuntal study must be built, and, moreover, it is the only foundation upon which it can be built, if the study of Counterpoint is to be the means by which the power of mentally conceiving and constructing combinations of melodies is developed in the individual, and the first preliminary step towards the attainment of this is the power to intelligently and critically listen to such combinations.

III. The exact value of the study of strict Counterpoint, to the musical student, is a matter upon which different teachers hold widely different views, and in the clash of divergent opinions upon nearly every conceivable point about which it is possible to differ, the fact that the study of strict Counterpoint, besides being a form of mental training in the ornamentation of simple diatonic progressions (which, by present day methods, is effected almost entirely through the medium of the eye) should also be an instrument for developing and training the powers of listening intelligently and critically, first of all to the simplest types of contrapuntal music and later on to more complex types, seems to have entirely escaped their attention. They do not appear to have recognized that the power to intelligently listen to contrapuntal music must precede, is, in fact, the first important step to be taken along that road which gradually leads to the more advanced operations of constructing such, if the mental realization of the musical effect of such combination of parts, is to be in any degree possible If, therefore, the special form of exercise, the contrapuntal ear-exercise, which alone can develop and train the powers of critical observation and memory in connection with this kind of music, which alone brings contrapuntal exercises into direct contact with the musical powers of the mind, if this kind of dictation exercise be altogether omitted from the scheme of contrapuntal training, then, so far as real musical results are concerned, the fact that a melody may or may not leap a major sixth, or that a certain combination of notes may or may not be a six-four chord, are matters of little moment compared with the fundamental error of having built up a fabric of so-called contrapuntal knowledge upon a non-musical (if not an

absolutely mathematical) foundation. Considering the immense amount of time which is devoted to the writing of exercises in elementary counterpoint by students who never get beyond the elementary stages, who never reach the stage when its study passes from being a form of mental training into some form of musical achievement in the nature of contrapuntal composition, whose combining of hundreds of so-called melodies has never helped them in the smallest degree either to listen to contrapuntal music with intelligence, or to study it with interest if not with pleasure, is it not time that we adopted a method of teaching counterpoint by which some real musical result should be the outcome of all this labour, and whereby even its elementary stages should not be altogether devoid of benefit to the pupil, that however short the distance the pupil travelled along the "contrapuntal high road," even if it be only to some "local examination standard," yet, in a corresponding degree and in a corresponding manner, its study should have developed his musical powers? It is possible that the real value of such elementary study—and when it does not proceed beyond these elementary stages perhaps its *only* value—is that it could, and it should, be made an instrument for training and developing the powers of the mind in the direction in which they are appealed to when listening to contrapuntal music, and yet this aspect of contrapuntal study seems to have been completely lost sight of by teachers. Is it too much to hope that the publication of this book, with many graduated contrapuntal dictation exercises, may lead the way to more musical and to more interesting methods of teaching this indispensible subject of musical education, which under present methods is supremely unattractive to the pupil and receives only a half-hearted assent from many teachers?

IV. The Nature and Grading of Contrapuntal Ear-Exercises.—Contrapuntal ear-training is effected by means of ear-exercises written in two or more distinct parts, each possessing that individual and vocal character which is the distinctive feature of what is generally understood as the "contrapuntal style." These exercises are to be written down by the pupil from dictation, after they have been played over a few times by the teacher. In dictating the simplest exercises of this kind, three times is generally sufficient in order that they may be remembered, but in the more complex exercises, not only will it be necessary to divide an exercise up into small sections, but three times would not be sufficient for the large majority of pupils to retain such combinations of melodic parts in their mind, and all such matters must be left to the discretion of the teacher, who will have constantly to take into consideration the ability, or absence of ability, of the pupil. Owing to the special nature of contrapuntal music, and the difficulty of following and remembering a combination of even two short and simple but contrasted melodies, contrapuntal ear-exercises, especially the earliest ones, require most careful grading, both with reference to the melodic and rhythmic character of the individual parts, and also the general complexity of the resulting combination. In the first exercises not only must the melodies or parts be simple in themselves, but they must be

evolved from the simplest and most obvious harmonic basis or framework, if the beginner is to have a reasonable chance of following them in every detail and retaining them in his mind long enough to enable him to write them down correctly. The simplest ear-exercises of this kind are naturally in two parts, and as both parts are necessarily *outside* parts, each part will stand out with as much distinctness as possible. In such exercises the parts are more easily followed by the ear when they are situated some distance apart, as for instance treble and bass parts, and when the range or compass of the two parts does not overlap, as would to some extent be the case in the combination of an alto and a tenor part. Despite the fact that only two parts may be present in an ear exercise, yet at the same time it is possible for such an exercise to be one of considerable difficulty. As we intimated above, the difficulty of such exercises depend partly upon the nature of the harmonic framework of the exercise, of which the combination of the two parts is really some form of elaboration and partly upon the rhythmic and melodic character of the individual parts.

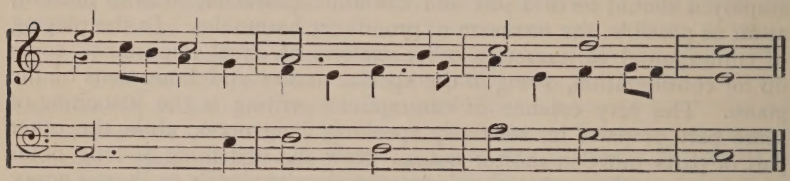
V. The Harmonic basis of Contrapuntal Ear-Exercises.—With regard to the harmonic basis, or framework of such exercises, although no chord is complete unless at least three different notes are sounded simultaneously, yet harmonic progressions may be suggested in no uncertain manner by the skilful combination of two parts. Viewed from the harmonic standpoint, the simplest two-part exercises are those in which the two parts are an elaboration of a few of the simplest and most familiar chords, as for instance Tonic and Dominant—Tonic, Dominant and Subdominant—and so on, and this method has been largely adopted in framing many of the following ear-exercises, the various diatonic chords being gradually introduced in a somewhat similar order to that employed in the harmonic ear-exercises. We say in a "somewhat similar order" because, in the first exercises, if we are to have a melodic bass part, we cannot confine ourselves merely to Tonic and Dominant triads in their root position—that is, to a bass part consisting of two different notes—but must use these chords also in their inverted forms. In the subsequent exercises, therefore, the root position and inversions of any chord, are introduced simultaneously, so far as these are familiar and useful combinations.

VI. The Nature of the individual Parts.—With regard to the nature of the parts themselves, considering the unlimited variety of rhythms which it is possible to conceive and to combine, it has been found impossible, owing to the limits of space, either to construct those employed in the following exercises upon any regularly progressive method, or to illustrate more than a comparatively few of the more useful and familiar rhythms. In the earlier exercises only simple rhythms, involving the more familiar forms of sub-division of the bar and of the beats of the bar, have been employed, while the exercises have been constructed so as not to obscure the regular accentuation of the bar. In later exercises, the rhythms and the combination of them are of a more complex and generally advanced character.

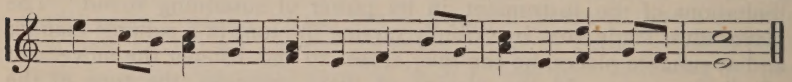
VII. The Playing of Contrapuntal Dictation Exercises upon the Piano.—The playing of every kind of dictation exercise requires great care, if the listener is to have any chance of writing such down correctly. In dictating melodic ear-exercises, correctness of accentuation and exactness in the relative length of the notes are of the highest importance, while in harmonic ear-exercises it is not less important to play the chords with equality of tone throughout all the parts, while the tone employed should be of a soft and cantabile character, so as to prevent, as far as possible, the intrusion of prominent harmonics. In the playing of contrapuntal ear-exercises, other matters of equal importance come up for consideration, owing to the special nature and limitations of the piano. The very essence of contrapuntal writing is the sustaining of some part or parts in, relatively speaking, long notes, while the other part or parts move in shorter notes. Now the sustaining of long notes in one part, while another part is moving simultaneously in shorter notes, can generally be followed without very great difficulty when such a passage is played upon the organ, which has the power of sustaining sounds at an equal strength and for any length of time, but the difficulty of following the individual parts in such exercises is, however, greatly increased when they are played upon the piano, which does not possess the power of sustaining sounds at their original loudness, every sound, in fact, rapidly dying away immediately after the key has been struck. The nature and limitations of the piano not only make the unravelling and writing from dictation of contrapuntal ear-exercises played upon this instrument a task of exceptional difficulty to the pupil, but also make the playing of them a matter demanding very considerable skill and knowledge on the part of the teacher, or whoever may be dictating them. The problem which has to be solved is, how to render contrapuntal music upon the piano so that, to some extent, the ear is deceived with regard to the limitations of the instrument in its power of sustaining sound. The player must study how, by skilfully varying the tone in a suitable manner and at suitable places, he can fully reveal to the listener the movement of all the parts. In the playing of these exercises, the tone of the different parts must be so graduated that, in spite of the dying away of the tone of a long note which may appear in any part, yet owing to the skilful softening (at the right moment) of the tone of the other moving parts, the attentive listener is able to hear the sustained sound still softly sounding, and guided by his knowledge of part-writing, is able to follow the progress of the various parts, in spite of the fact that some have almost disappeared in sound.

VIII. The special difficulties referred to above are not present in any high degree until exercises in three or more parts are reached. In exercises in two parts (often a treble part and a bass part, which keep to their own distinctive region of the keyboard, and which generally move in an unbroken manner throughout the exercise) there is little chance of any confusion arising in the progress of the individual parts. Should, however, such two-part exercises be formed of two adjacent parts, as for instance treble and alto, the compass of each overlapping that of the

other to a large extent, then the same kind of difficulty might arise, although, in the presence of only two parts, it could only do so to a small extent. In three-part exercises the special nature and difficulties of the problem are revealed in no uncertain manner, and these can be most clearly illustrated by a critical study of the following three-part dictation exercise (see No. I, p. 141), which we shall assume is being heard for the first time by the pupil.



In the above exercise, it will be seen that the treble and bass parts are sounded together at the outset and move chiefly in relatively speaking long notes, while the alto part enters upon the second beat of the bar and moves in short notes. The first treble and bass notes after they have been struck, rapidly die away, and unless the alto part enters quite softly, its entry will obliterate the softly sustained treble note, and what is intended for the alto part will sound as if it were a continuation of the treble part, as shown below; moreover, unless a similar method of treatment is adopted (that is, the alto part softened) at every place where the treble is sustained and the alto moves, a corresponding effect will be produced, and, to the listener, the highest part will be heard as if it were formed of what are really treble and alto notes. Thus the two upper parts will sound very much like the following:—



The two upper parts of this exercise will be heard in this manner, not because the sustained notes are not being carefully held down their full length, or because they are not still softly sounding, but because the relative loudness of the alto part has (to the ear) practically obliterated what is still sounding of the higher part, and the absence of any reasonable proportion in the volume of the two sounds, has destroyed, for the listener, the effect of two continuously sounding but independent parts. Any suggestions as to the right method of playing the following exercises can only be upon very general lines, but when the teacher's attention has been drawn to some of the chief difficulties from the listener's point of view, he should be able to study the details of the problem for himself. This, in short, is "the interpretation of contrapuntal music upon the piano." The two following rules will be found useful for general guidance: (1) When the notes forming the various parts are struck together, all the parts should be sounded, approximately with equal strength, except perhaps that some slight extra pressure

might be given to those which have to be sustained much longer than the others; (2) that notes which are struck during the sustaining of other parts must be sounded quite softly, so that the ear shall still be able to hear and to follow the softly sustained sound of the notes previously struck and which are still being held down.

IX. The musical effect of contrapuntal music played upon the piano is something quite different from the same kind of music played upon the organ. Each has its own special character and its own special difficulties in interpretation. At the same time, to hear a really great artist interpret upon the piano a fugue by Bach or Beethoven, is, to many, a revelation, not only as to the extent to which it is possible to produce sustained sounds upon this instrument, but also as to the extent to which it is possible, by a perfect control over every gradation of tone and by a skilful employment of these at the right moment, in a sense, to deceive the ear of the listener and to give the impression that the piano possesses even greater sustaining power than it really does. Such performances, of course, imply the possession of practically perfect piano technique on the part of the player, as well as an ear of the finest discriminative power, and these can hardly be expected from the ordinary teacher of ear-training, neither, in the dictation of the following exercises, are they necessary. If the teacher, bearing in mind what has been said above, will sometimes place himself in the position of the listener, and, without having first seen a contrapuntal passage, will try to follow its various parts, to unravel their intricacies and to re-construct them in notation, entirely from what he hears, and exactly as he expects his pupil to do, he will soon understand and enter into the difficulties of such dictation exercises when played upon a piano, and by experience gained in this manner will learn how they may best be rendered.

X. Method of Dictation.—With regard to the method of dictating the following exercises, pupils differ so considerably in their power of following and remembering such contrapuntal passages that it is only possible to give suggestions of a very general character. In matters of detail, each teacher must be his own guide. In dictating any exercise (after the key has been announced and the key-chord sounded), the whole exercise should be played over at least once, in order that the pupil may decide the Time of the exercise and get an idea of its rhythm and general musical character. The exercise may then (if necessary) be divided up and dictated in sections, according to the length and difficulty of the exercise and the ability of the pupil, and each section should be written down completely and correctly by the pupil before proceeding to the next. The most suitable places at which to end the sections will vary in different exercises and will depend to some extent upon the melodic construction of the highest part, but in order to enable the listener to more easily follow the time and rhythm of an exercise, such sections should generally end upon an accented rather than upon an unaccented beat of the bar.

CHAPTER XXV.

CONTRAPUNTAL EAR-TRAINING—ITS NATURE AND VALUE.

135. CONTRAPUNTAL EAR-TRAINING, as its name implies, is the training of the mind to intelligently and critically listen to music of a contrapuntal character, that is, music which is formed of a combination of two or more parts, each of which possesses a distinctive melodic, and generally also a distinctive rhythmic character of its own. The training of the mind to critically listen to, or to observe, contrapuntal music, leads directly, although unconsciously, to the gradual development of the powers of memory and of thought in connection with music of this character and eventually to the highest of all powers, that of mentally conceiving and fashioning musical ideas formed of a combination of melodic parts. Given a mind possessed of suitable powers, this is the ultimate goal to which contrapuntal ear-training leads. For the ordinary student, however, the results of this form of training are less distant than the composition of contrapuntal music. Its immediate objects are to train the listener to hear and to realise, in its fullest detail, the effect of a combination of two or more parts sounded together, to perceive the direction in which the various parts may resemble or differ from one another, and also to isolate and to follow the progress of one or more of the parts forming the combination.

136. The value and importance of this form of training to every one who wishes to listen intelligently to music of a contrapuntal character, or to music not necessarily contrapuntal in the usual meaning of the term, but in which the parts possess individual melodic and rhythmic interest, must be obvious. All compositions in the nature of fugues, or into which fugal treatment enters, must be practically meaningless to listeners who are unable to follow the entries of the "subject" through the various parts or voices, and to recognize it in its various guises and under the different kinds of treatment to which it is subjected. If, however, this training is valuable for those who merely listen to music of this character, how much more so must it be to those who play it, and who are at once the interpreter and the critic. The nature of the organ, the music of which is so largely of a contrapuntal character, makes it impossible to obtain any variety of tone between the different parts of such music, except so far as these may be played upon different manuals, but as absolute accuracy of part playing is necessary in all good contrapuntal playing upon the organ, the power of critically listening to the various parts and of following them, in their fullest detail, is the first condition of success in this direction. The interpretation of contrapuntal music upon the piano calls into exercise the powers of critical listening in the very highest degree, not merely in helping to secure accuracy in part

playing, but in controlling the continual and ever varying gradations of tone which are required in the adequate interpretation of music of this character upon the piano. To no class of musician, however, is this form of training of such immense importance as to the trainer of choirs, of orchestras, and of other combinations of voices and instruments. Musicians of this class are constantly engaged in critically listening to every kind of contrapuntal music, and not only must they be able to realise the effect of the complete combination and compare it with the printed page before them, but they must be able to instantly isolate any single part, or combination of parts, and to follow and criticise them, undisturbed by the presence of other parts sounding simultaneously. This special kind of training, which to other classes of musicians is valuable, to this class becomes a vital necessity, for it is the most efficient means for developing in them those special kinds of mental power, of observation, of memory and of thought, in connection with contrapuntal music upon which any success they may achieve must be built.

137. **Upon listening to Contrapuntal Ear-Exercises.**—As the listening to contrapuntal music in any intelligent or critical manner makes a higher demand upon the mind and intelligence of the listener than the listening to music of a purely harmonic character, so in a similar manner contrapuntal ear-training makes correspondingly higher demands upon his powers of observation and memory than harmonic ear-training. While it may not be within the power of every mind to remember and to unravel some of the advanced and complex contrapuntal dictation exercises given herein, yet the average music student, who regularly exercises his powers of observation and memory upon a suitably graduated course of contrapuntal dictation exercises, will probably find these powers capable of a higher development than at the outset he thought possible. In connection with the listening to—the observation of—such exercises, with the object of writing them down from dictation, it is not possible to offer many suggestions which are likely to be of value to the student in helping him to unravel a passage of counterpoint and translate what he hears into musical notation, for the reason that the manner in which such passages and their various difficulties present themselves to different individuals, depends so largely upon the nature of the mind of the listener and his musical training and experience. It is, however, possible to refer in a very general manner to certain points towards which the listener's attention should be directed, and the careful noting of which will help him both to follow the parts and also to remember certain of the details. Thus the following should be carefully noted :—

(1) The harmonic basis or framework of the passage and anything specially characteristic about this ;

(2) the general nature of the parts, and how far unessential notes enter into the formation of them ;

(3) the rhythm of the several parts or anything which is specially noticeable in this, also the manner in which the rhythms are combined ;

(4) the relative position and also the pitch of any prominent note or notes in any part.

CHAPTER XXVI.

CONTRAPUNTAL DICTATION IN TWO PARTS.

138. The following two-part dictation exercises may be employed in three different ways; thus the listener may concentrate his attention entirely upon the treble part, *or* upon the bass part, with the object of remembering and writing *either* of these down from dictation, or he may distribute his attention over the two parts with the object of retaining the complete exercise in his mind and writing it down fully.

139. **Accompanied Treble Parts.**—The average student, as a rule, requires little special training to enable him to concentrate his attention upon the highest part, he generally does it only too well and to the exclusion of everything else. At the same time, to follow the progress of a melody with a full knowledge and appreciation of the notes of which it is formed, and of the intervals between them, when another part is being sounded simultaneously, is something much more than being able merely to listen to it. To write down from dictation a harmonized or an accompanied melody is always a more difficult task than to write down an unaccompanied melody, and it may easily be made a much more difficult one. The degree to which even a familiar melody may be obscured by different methods of harmonization is probably only fully realized by those who have made experiments in this direction,* and every teacher of harmonic ear-training is continually having evidence thrust before him of the extent to which the presence of chords or even of a single accompanying part may obscure the character and progression of the simplest melody, and greatly increase the difficulty which a listener finds in following and naming the notes of such, not merely when the intervals between the several notes are of a simple character, but sometimes when there is merely a repetition of the same note, above changes of harmony. The simplest method in which the following exercises may be employed is to regard them first of all as "*accompanied treble parts*," the higher part only being written down by the pupil, although both parts are played.

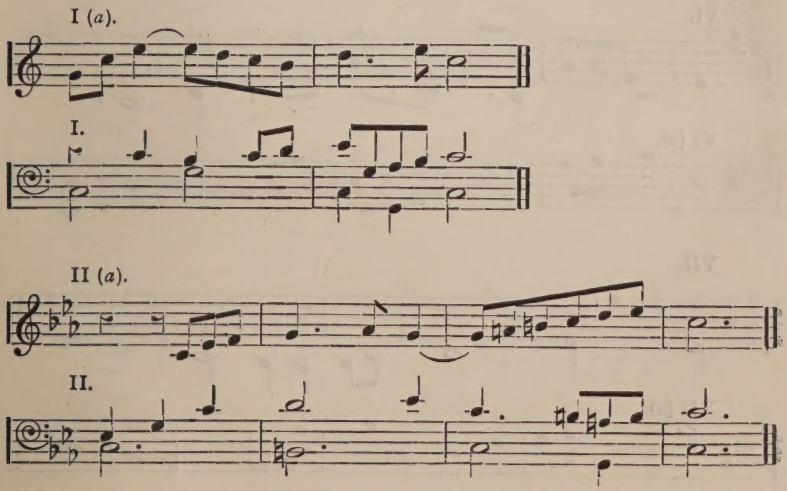
140. **Upon listening to the Bass Part.**—A more difficult task than following the progress of the treble part, is to direct the attention upon the bass or lower part and to follow this with a conscious recognition of the notes of which it is formed. There is a large number of students, especially amongst those who play instruments like the violin (upon which only one part is played, and that generally the highest part),

* Beethoven's challenge to the Tenor singer of the Electoral Chapel at Bonn and its result, is a classic illustration of what is possible in this direction.

who are frequently quite unable to follow in any intelligible manner the progress of any kind of under part, when this is heard simultaneously with an upper part. In the training of such students, it is most important that they should at the very outset be taught to concentrate their attention upon the bass part, and perhaps, in a sense, to mentally isolate it, by closing their mind to everything else which is sounding with it. In order to facilitate this, in Exercises 3 to 16 the same treble part has been employed above two different and quite independent under parts, an alto part and a bass part, *which are not intended to be employed simultaneously*, but each is to be joined separately with the treble part to make a two-part exercise. The isolating and directing of the attention into certain definite channels, may, we believe, be rendered easier, if that which is being heard simultaneously with what is to be specially observed, is already familiar to the listener owing to its having been heard and written down by him either separately as a melodic ear-exercise, or in connection with a previous two-part exercise. Each two exercises constructed in this manner will, of course, only be valuable for such purposes if employed immediately after one another, otherwise they become ordinary two-part dictation exercises, either bass (or in Exs. I and II either treble) being utilised for such purposes.

Dictation Exercises:—

*** Exs. I and II have two independent upper parts which are to be employed *separately* over the same bass part, while the remaining exercises have two independent under parts which are to be employed *separately* under the same treble part. The exercises numbered with an (*a*) are generally of a more difficult character than those indicated by figures alone, and should therefore be employed after the latter. The alto parts in Exs. III to XVI may be transposed an octave lower and dictated as bass parts.



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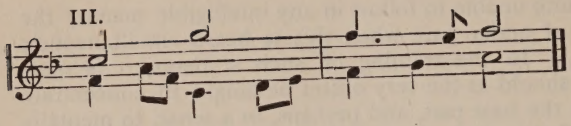

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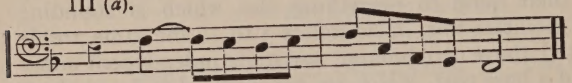

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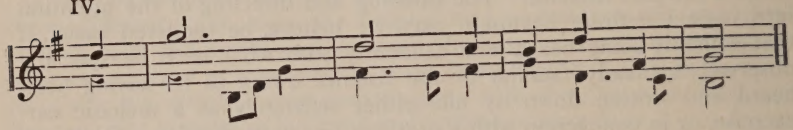

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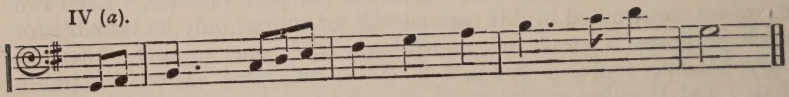

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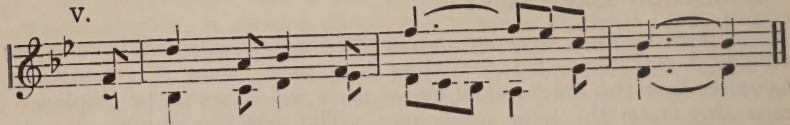

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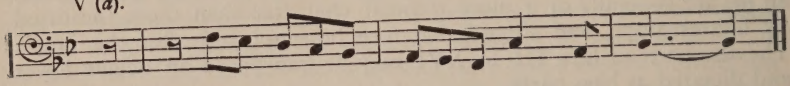

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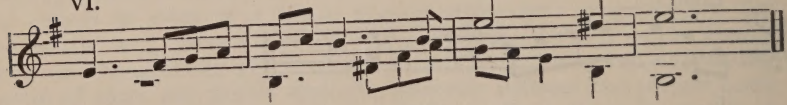
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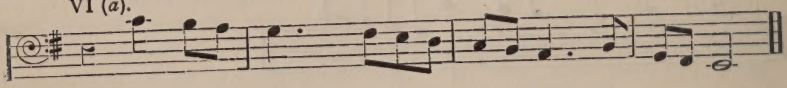

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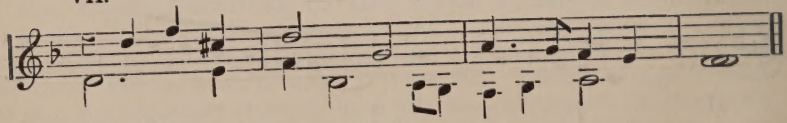

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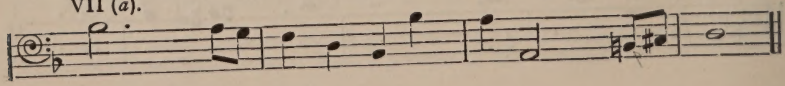

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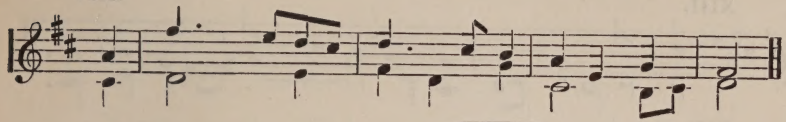

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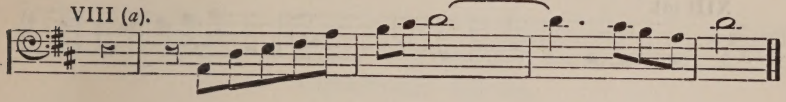

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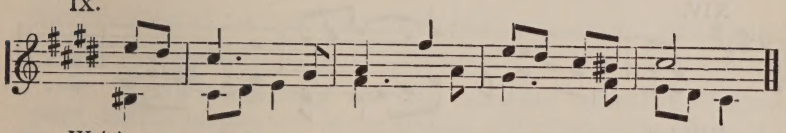

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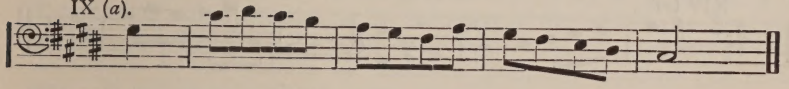

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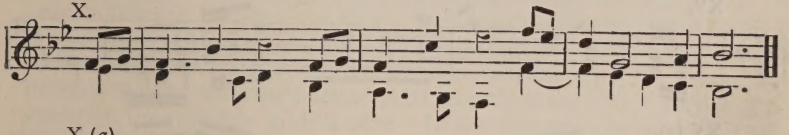

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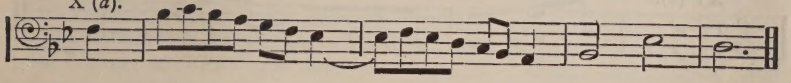

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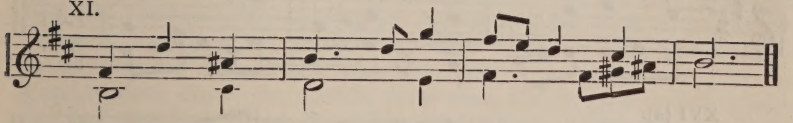

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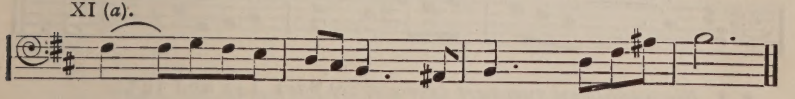

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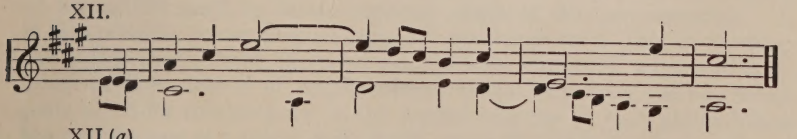

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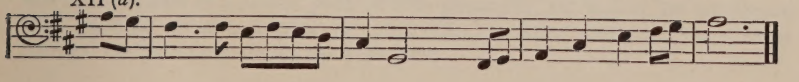

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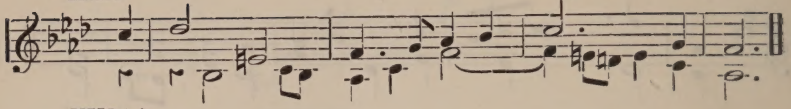

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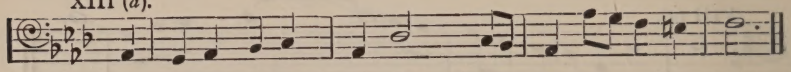

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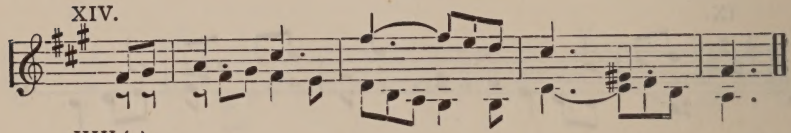
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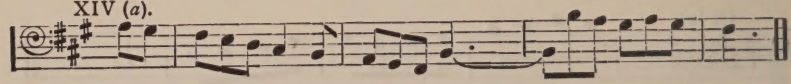
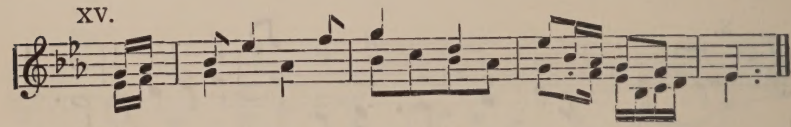
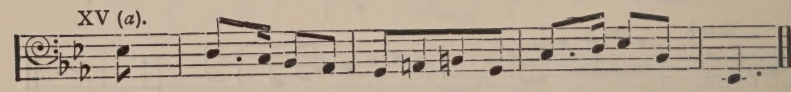


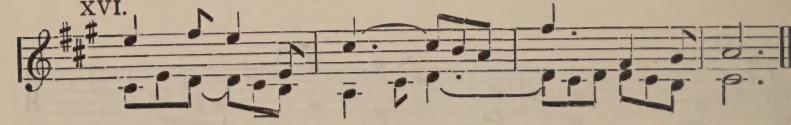
XV.



XV (*a*).



XVI.



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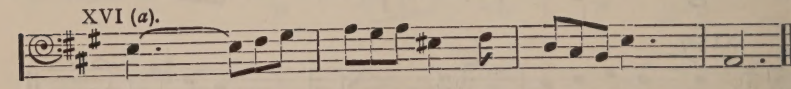


*** *For additional two-part exercises see pars.* 142 *and* 143.

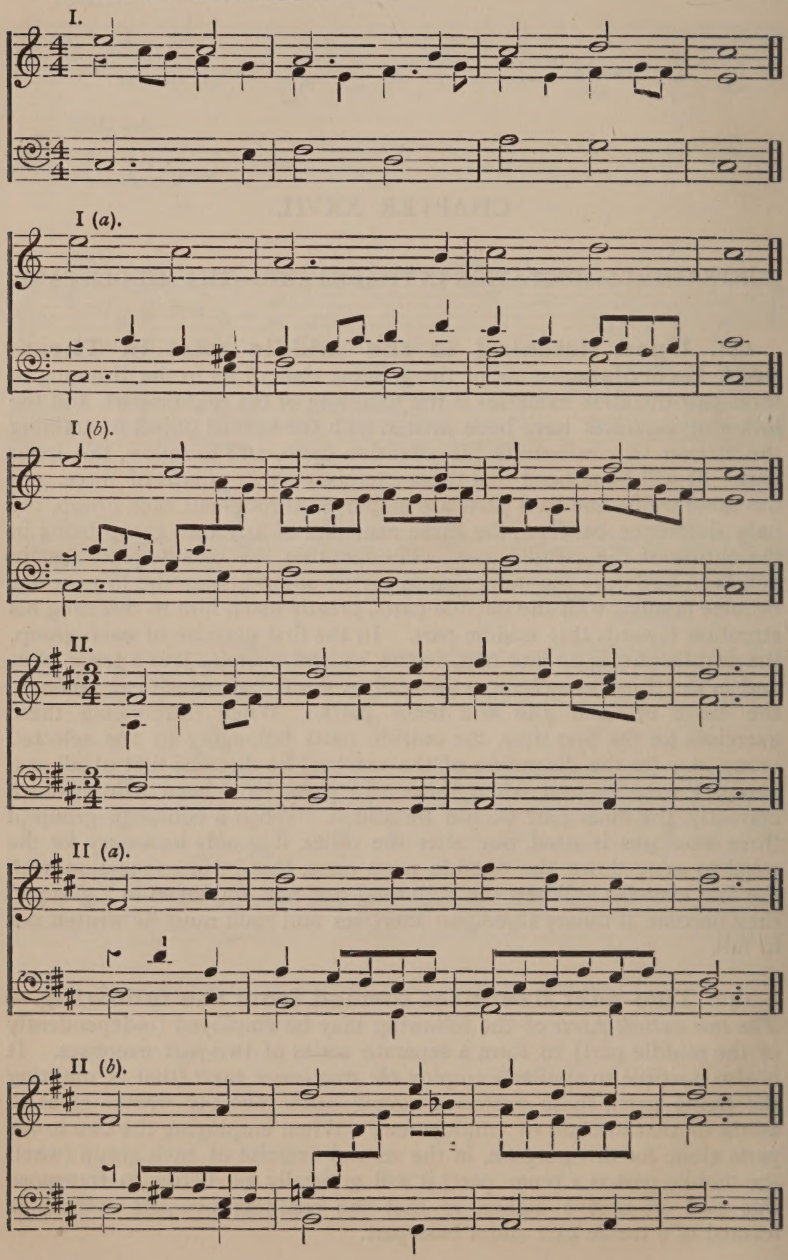
CHAPTER XXVII.

CONTRAPUNTAL DICTATION IN THREE PARTS—THE MIDDLE PART.

141. **Upon listening to the middle part in Three-part Exercises.**—One of the greatest difficulties in the listening to three-part dictation exercises is the following of the middle part, and the following exercises have been written with the special object of training the listener to concentrate his attention upon, and to follow, this inner part. It will be noticed that these exercises are in groups of three, and the same treble and bass parts are employed throughout each group, the only difference between the three exercises of any one group being in the nature of the middle part. The fact that the outside parts remain constant, and only the inner part is varied should, after the listener has become familiar with the outside parts, greatly assist him in directing his attention towards this middle part. In the first exercise of each group, the middle part is an alto part, in the second exercise it is a tenor part, and in the third exercise it is generally a florid part which extends over the range of both alto and tenor parts. When introducing these exercises for the first time, the outside parts belonging to the selected group *may* (at the discretion of the teacher) be dictated first of all as a two-part exercise, and when these two parts have been written down correctly, the inner part should be added. When a complete group of three exercises is used, one after the other, it is only necessary for the pupil to write down the outside parts once, that is, in connection with the first exercise. When the following are not employed in "groups" they become ordinary three-part exercises and each must be written out in full.

142. **Two-part Exercises formed from the following.**—*The two outside parts* of the following may be employed (independently of the middle part) to form a separate series of two-part exercises. It is also possible to similarly employ *the two lower parts* (that is, omitting the treble part), these exercises having been specially written so as to admit of that method of employment. When employing the two lower parts alone for this purpose, in the second exercise of each group (when the middle part is a tenor part) it will generally be better to transpose this part an octave higher, so that the resulting two-part exercise is formed of a treble part and a bass part.

Dictation Exercises:—



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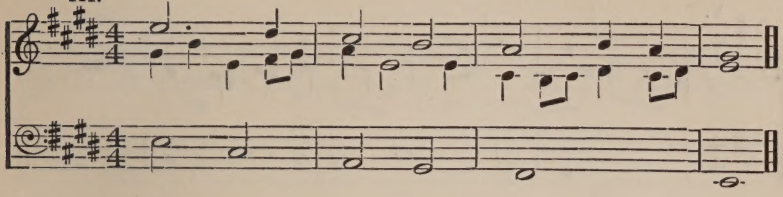
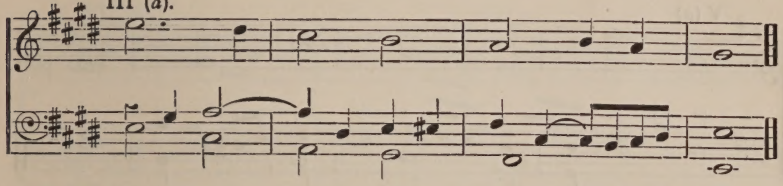
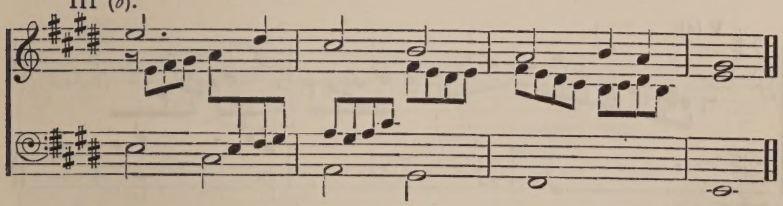


III (*a*).



III (*b*).



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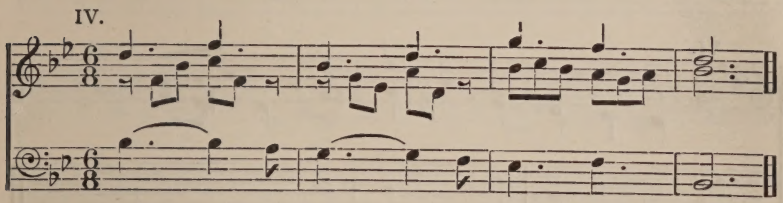
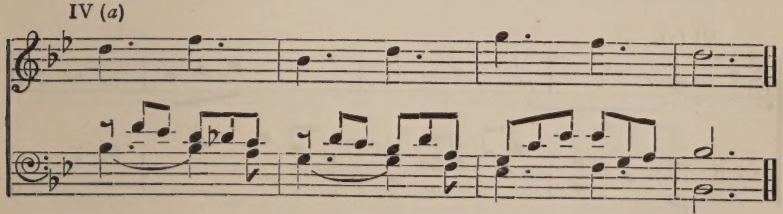
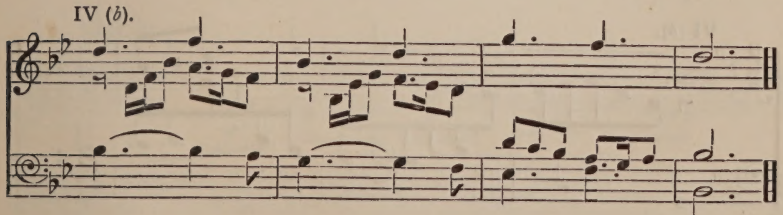
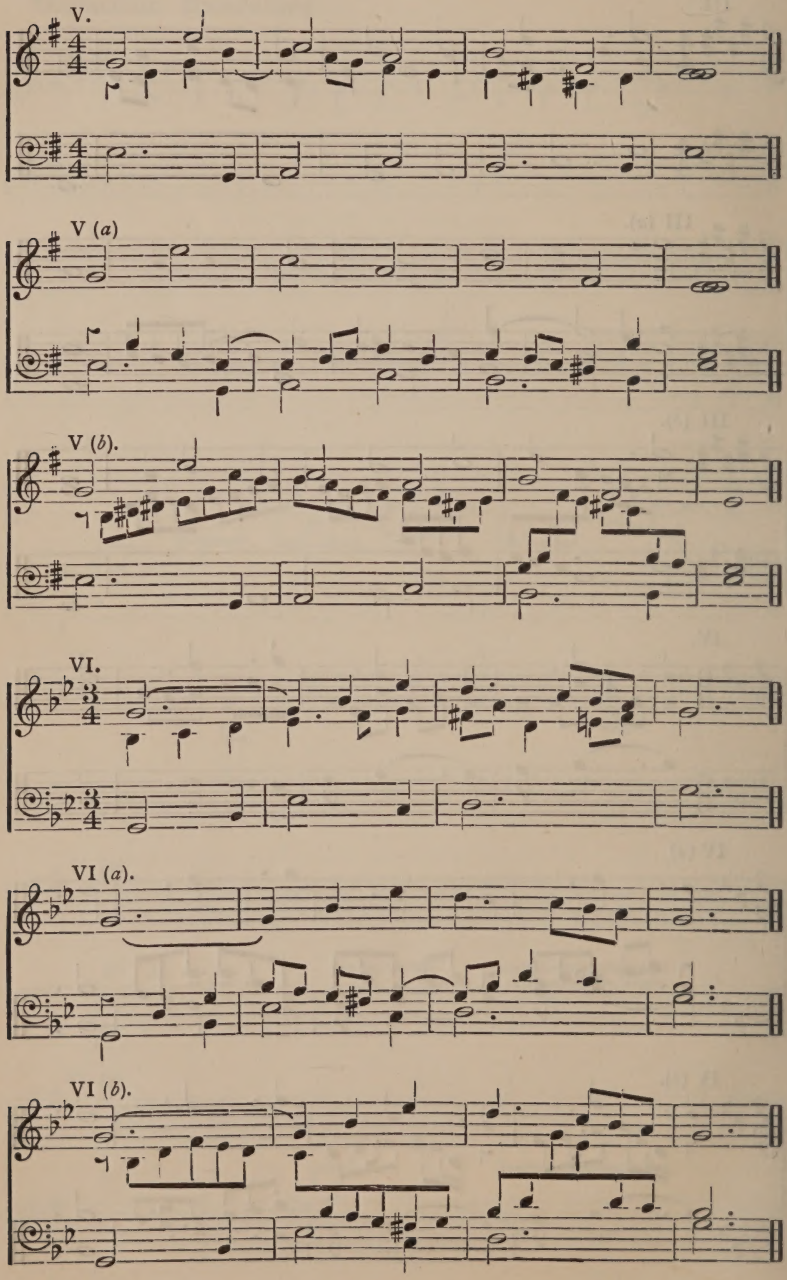


IV (*a*)

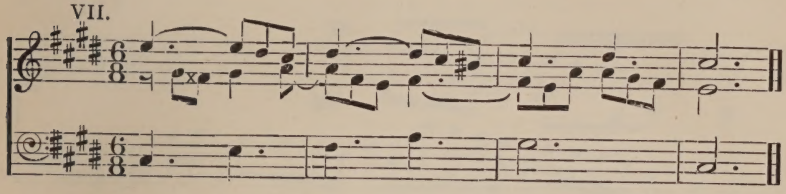


IV (*b*).

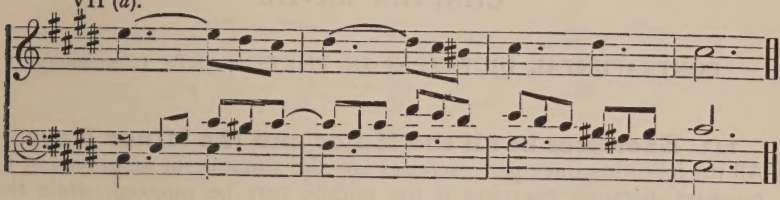



V.
V (a)
V (b).
VI.
VI (a).
VI (b).

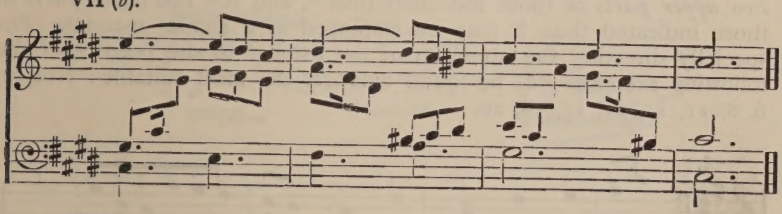
VII.



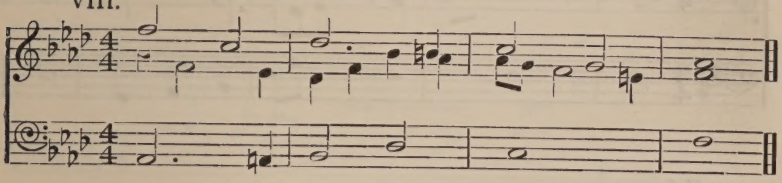
VII (*a*).



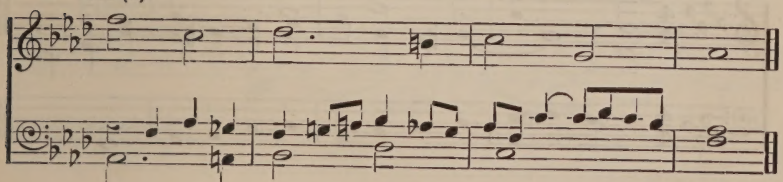
VII (*b*).



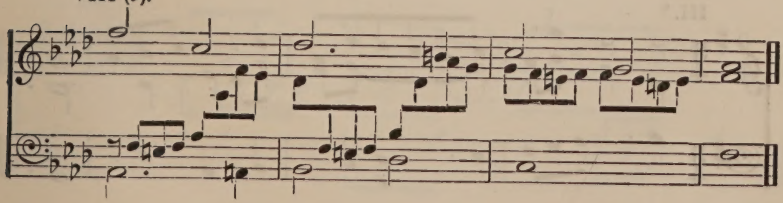
VIII.



VIII (*a*).



VIII (*b*).

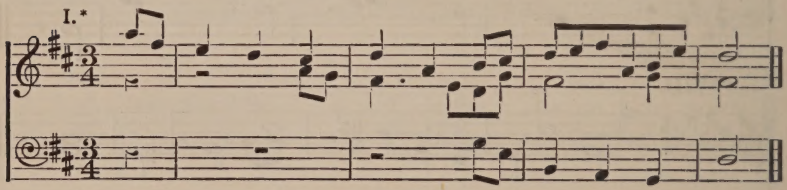


CHAPTER XXVIII.

CONTRAPUNTAL DICTATION IN THREE PARTS (*Continued*).

143. **Exercises in all the Major and the Minor Keys.**—All the following three-part exercises are also suitable for employment as *two-part* dictation exercises if the middle part be omitted, while the *two upper parts* of those indicated thus *, and the *two lower parts* of those indicated thus †, may be employed in a similar manner. For specially directing the attention of the listener to the *inner part* the following exercises will be found amongst the most suitable: Nos. 2, 6, 8, 11, 12, 13, 15, 18, 20.

I.*



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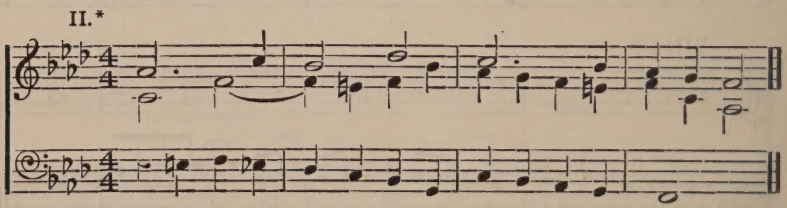

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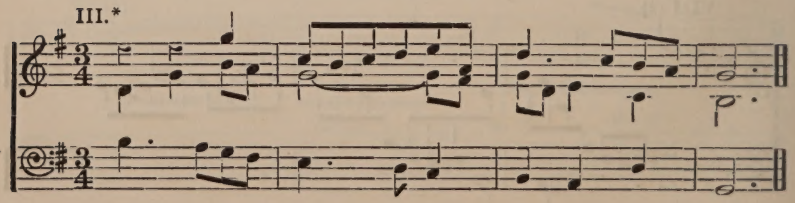
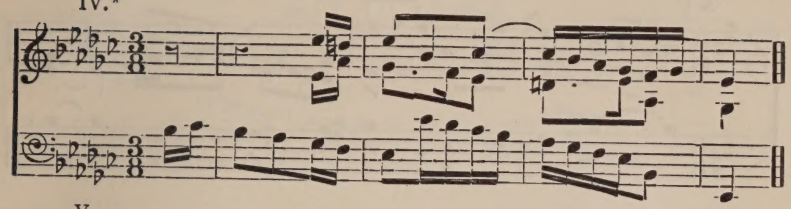

IV.*



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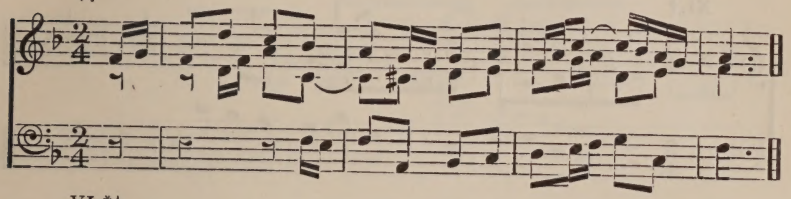

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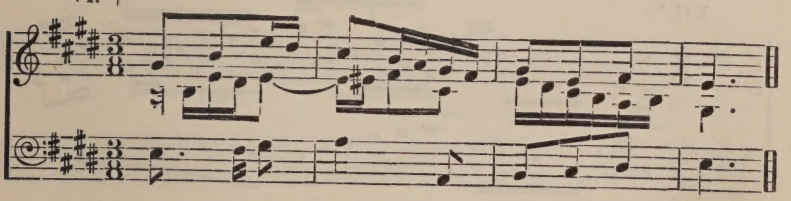
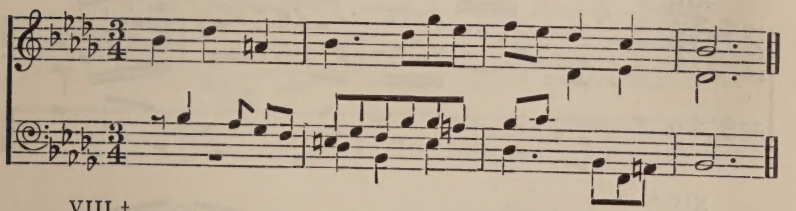
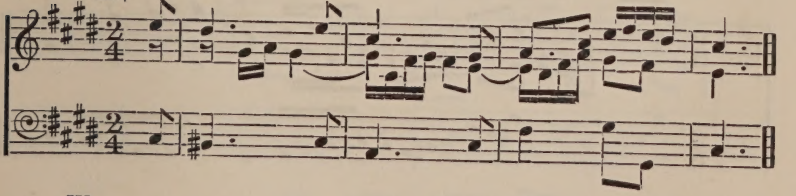
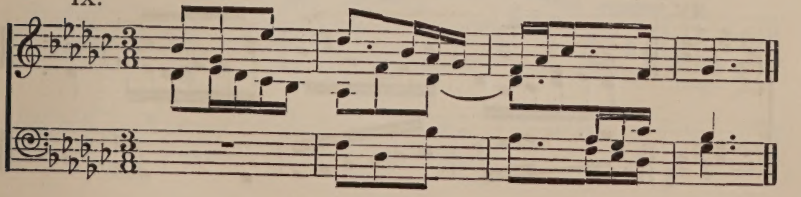

VII.



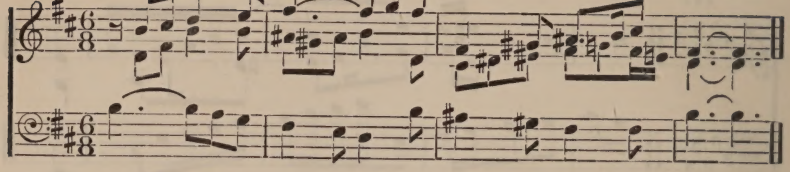
VIII.†



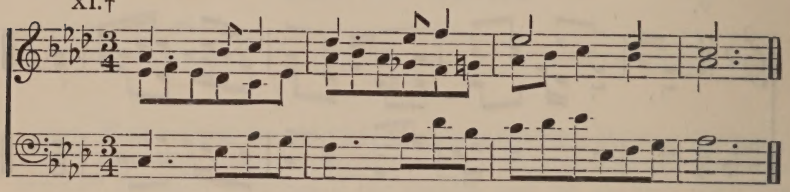
IX.



X.†



XI.†



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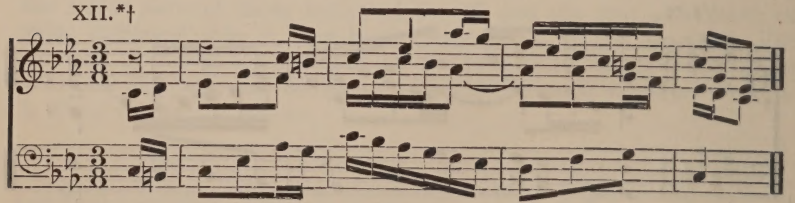

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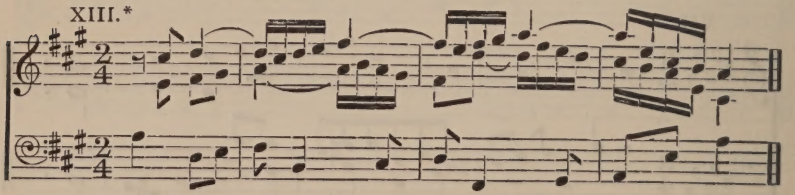

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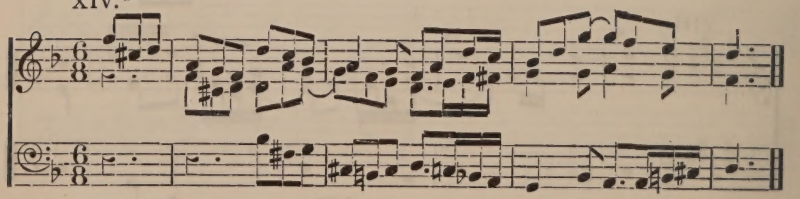
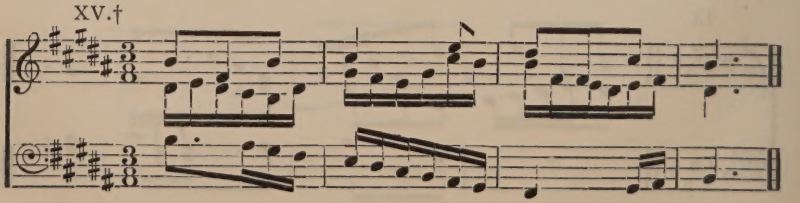


XV.†



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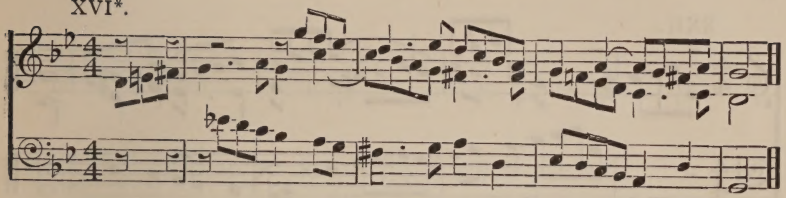

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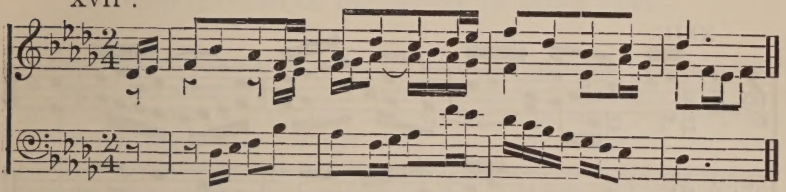

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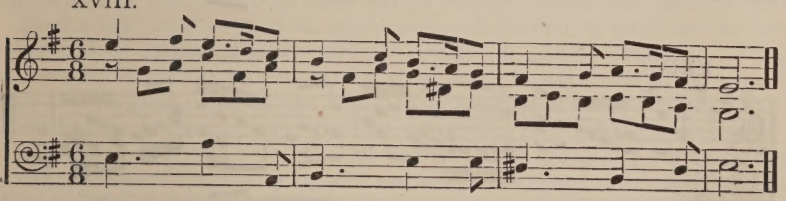

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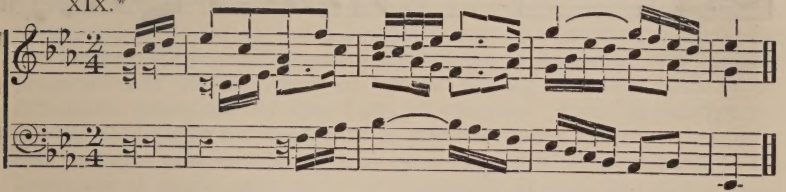
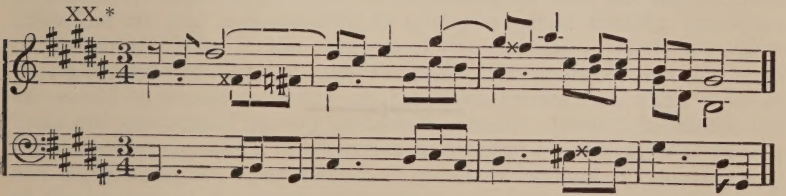
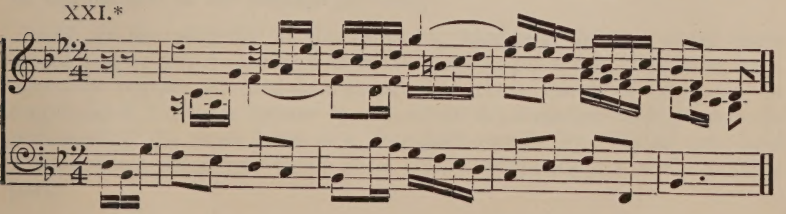

XX.*



XXI.*



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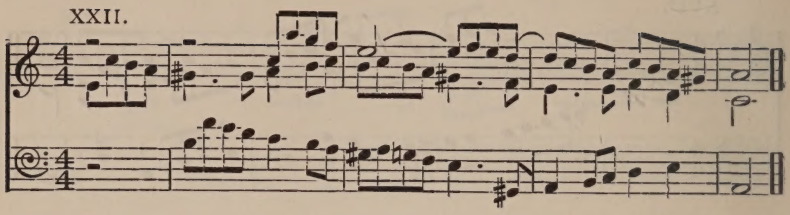
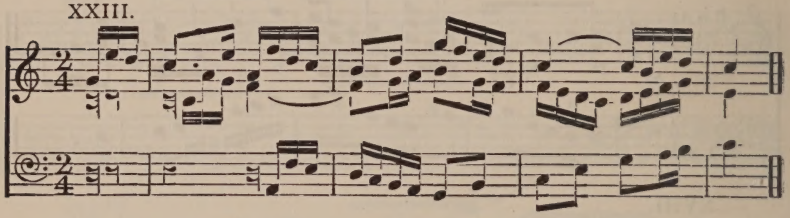
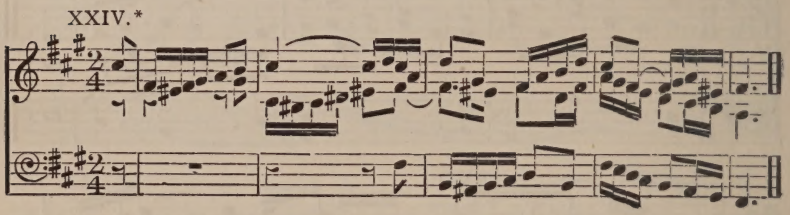

XXIII.



XXIV.*



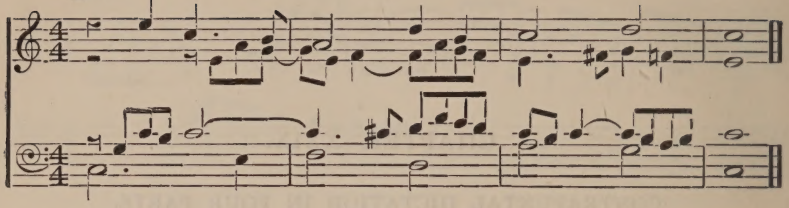
CHAPTER XXIX.

CONTRAPUNTAL DICTATION IN FOUR PARTS.

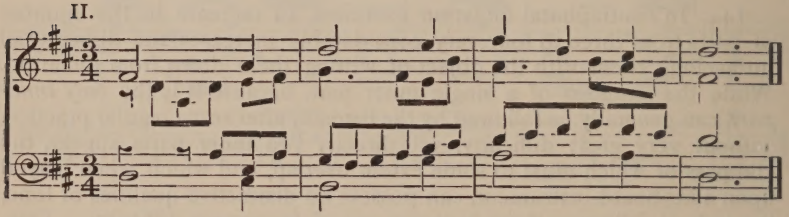
144. In contrapuntal dictation exercises, an increase in the number of parts from three to four very considerably increases the difficulty of unravelling them with the object of writing them down from dictation. While the progress of a single inner part, because it is the *only inner part*, can generally be followed by the listener, after some regular practice, without very great difficulty, yet directly two inner parts appear, the compass of which must to some extent overlap, and which when played upon a keyboard instrument, can possess no distinctive qualities of tone, the task of following these becomes one of far greater difficulty. This, however, is not the only point of view, there is the "rhythmic" aspect of the problem, thus, as the number of parts in contrapuntal exercises increase, so the opportunities for employing simultaneously a larger number of different rhythms also increase in a corresponding manner, and a greater complexity in the resulting combination of parts is the result. The difficulty of following the independent movement of the various parts is exceptionally difficult, when these are played upon the piano, which possesses but a limited power of sustaining sounds, and the listener will find a theoretical knowledge of harmonic and melodic progression of distinct value to him in helping him over some of the difficulties presented by this form of exercise. Such knowledge not merely suggests to his mind what is possible in the nature of harmonic and melodic progression, but may even suggest what is probable in the formation of single parts, or in the combining of such, and thereby may guide the ear into concentrating its power in certain specific directions or at definite points in the progress of the exercise. When such four-part exercises are dictated upon the piano, it is probable that the finest ear would be unable to follow all the parts throughout, when some of these are represented by long sustained sounds. In such instances, the listener who possesses a constructive knowledge of contrapuntal writing can often complete a part (which to his ear is incomplete) from a study of the context of the passage generally.

145. In the majority of the following exercises, the two inner parts are of a more florid character than the outside parts, and they have been specially written in this manner so that these exercises may also be employed *to train the listener to concentrate his attention entirely upon the movement of the inner parts in a four-part exercise* by "taking out" and writing down these two inner parts quite independently of the outside parts.

I.



II.



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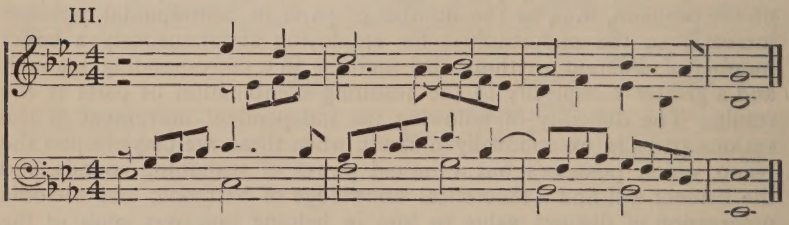

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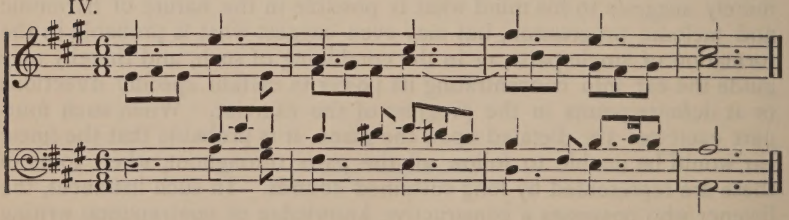

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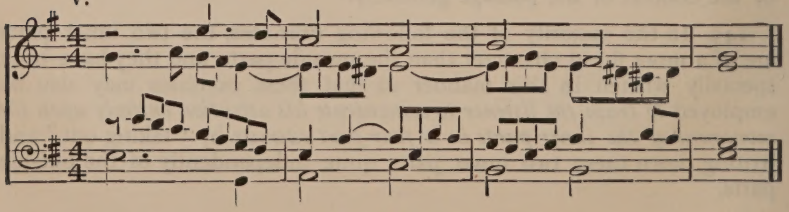

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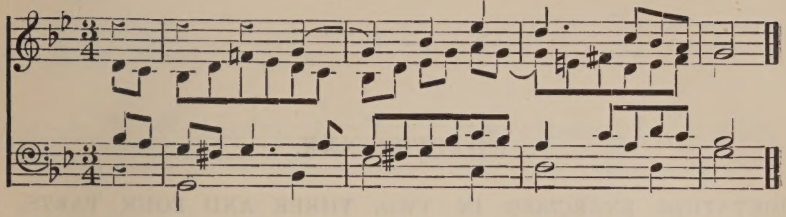

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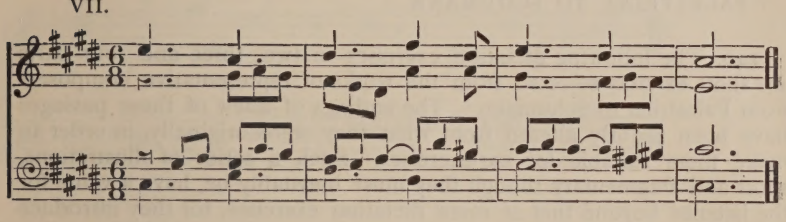

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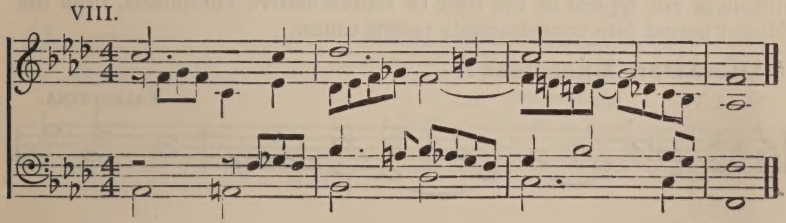

CHAPTER XXX.

DICTATION EXERCISES IN TWO, THREE AND FOUR PARTS, SELECTED FROM THE WORKS OF GREAT COMPOSERS FROM PALESTRINA TO SCHUMANN.

146. The following dictation exercises in two, three and four parts are short extracts selected from the works of representative composers from Palestrina to Schumann. The endings of a few of these passages have been slightly altered from what they were originally, in order to make them suitable for ear-exercises. Such a series of illustrations, short and fragmentary though they must inevitably be, have a value for the listener beyond that of mere dictation exercises, for they introduce to him in historical order, although in miniature, passages which in some instances are typical of the style of representative composers, from the Modal period into comparatively recent times.

Dictation Exercises:—

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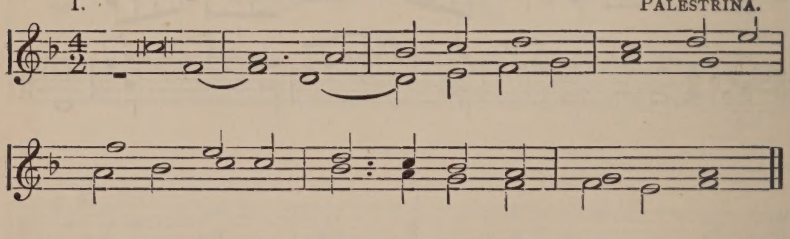

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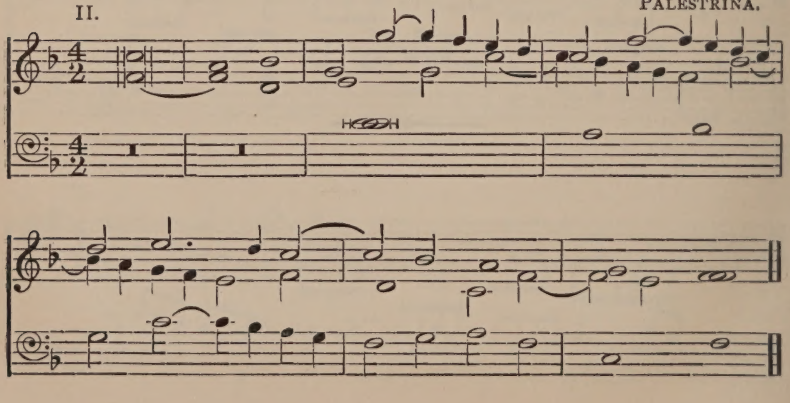

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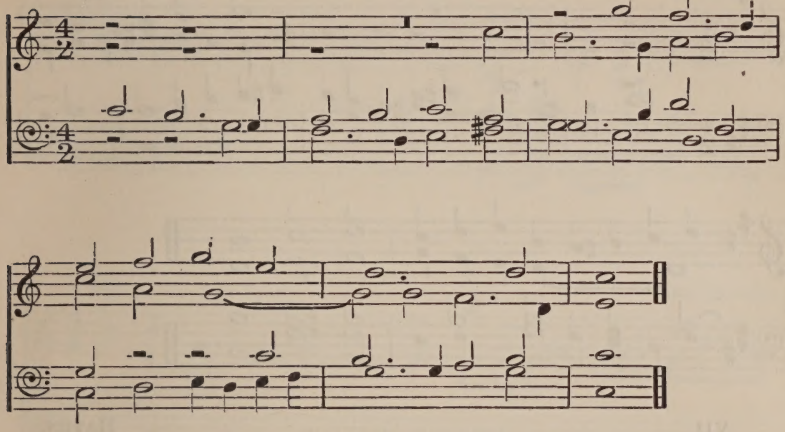
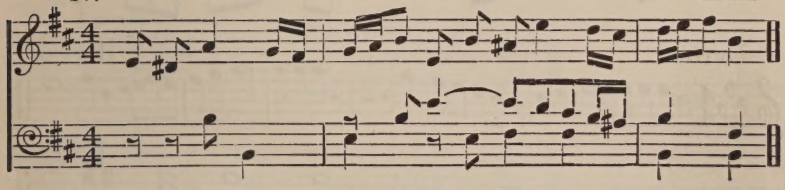
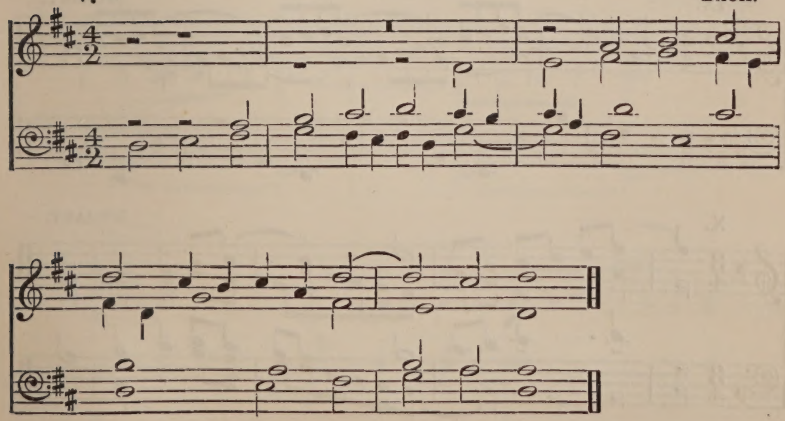


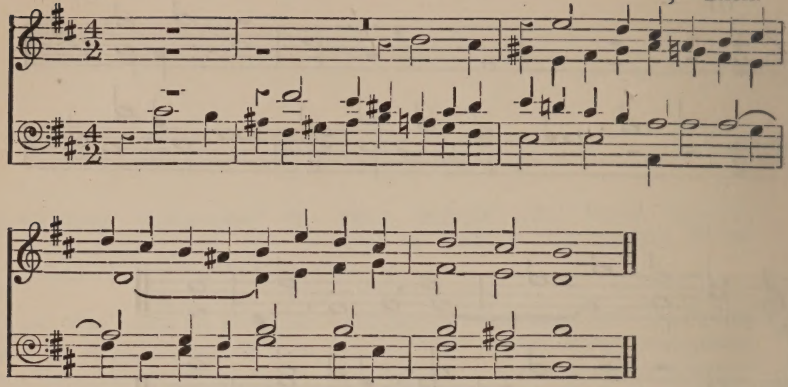
IV. BACH.



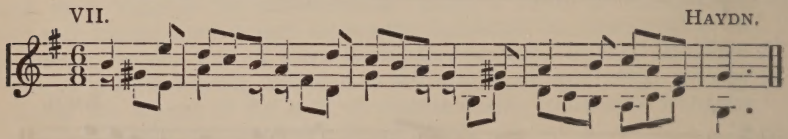
V. BACH.



VI. BACH.



VII. HAYDN.



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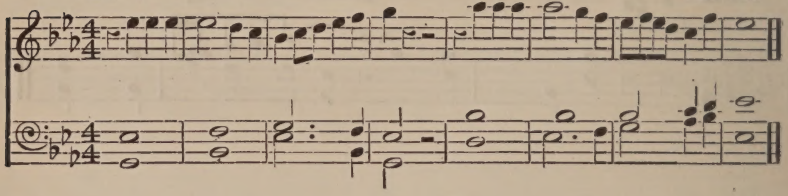
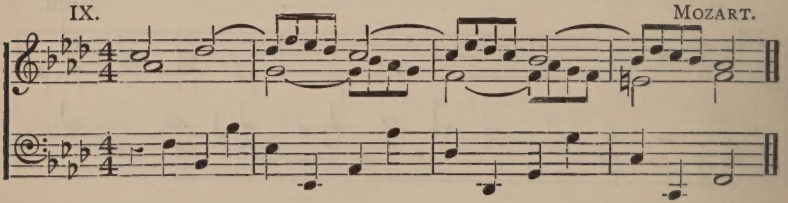
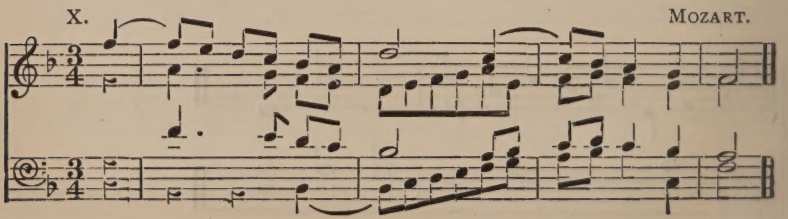


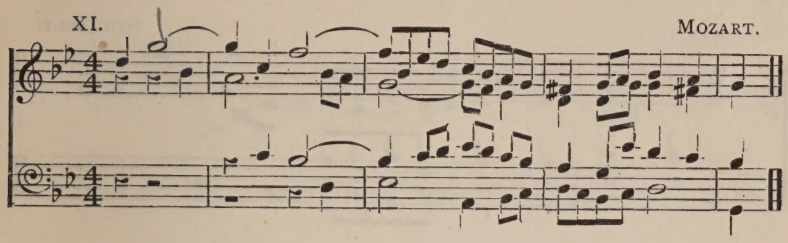
IX. MOZART.



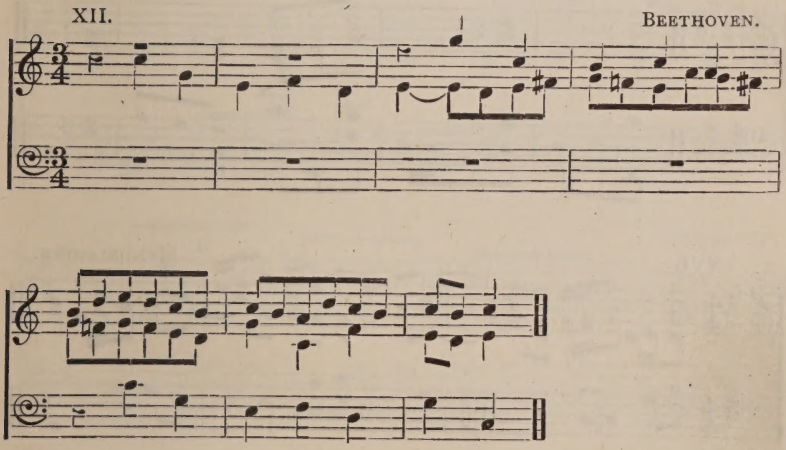
X. MOZART.



XI. MOZART.



XII. BEETHOVEN.



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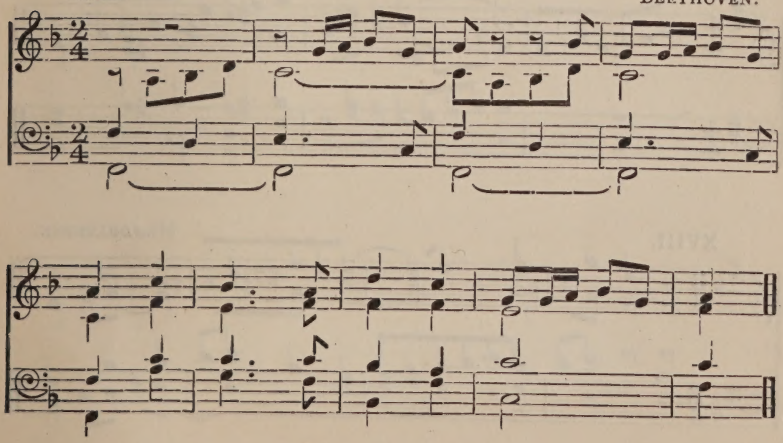
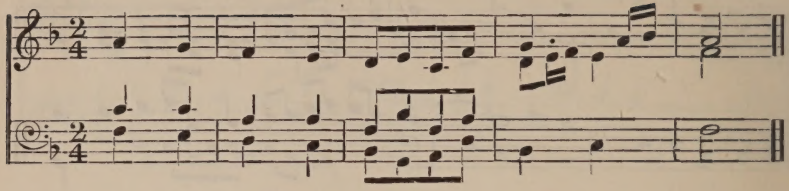
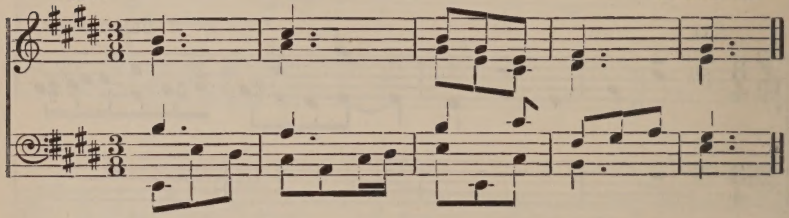
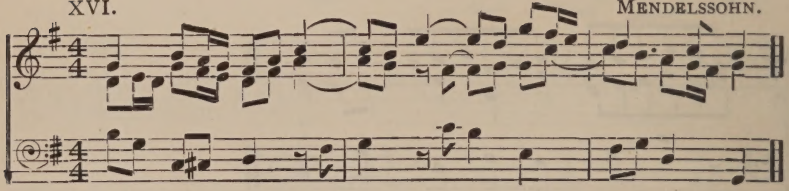
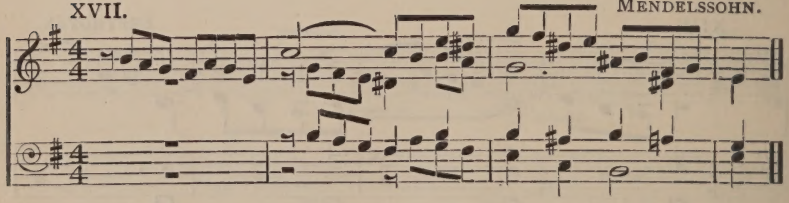


XIV. SCHUBERT.



XV. SCHUBERT.

XVI. MENDELSSOHN.



XVII. MENDELSSOHN.

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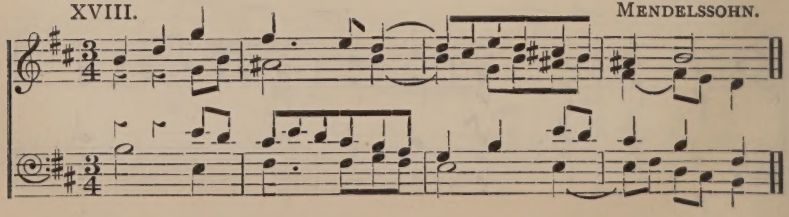
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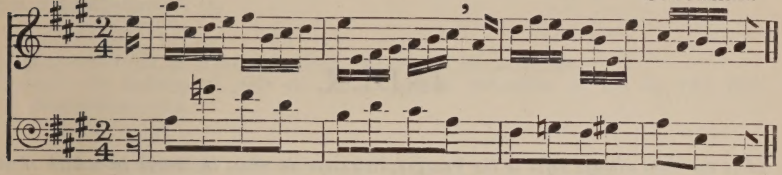

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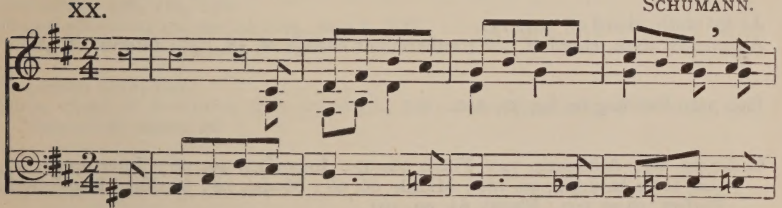

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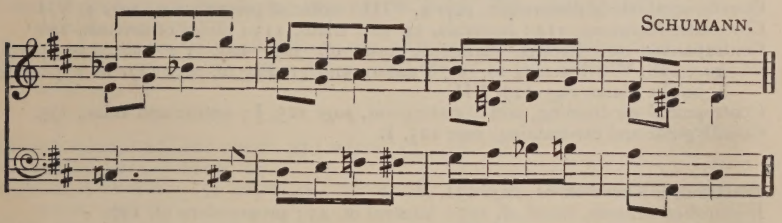

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